AEROSOL AGE

THE MAGAZINE OF PRESSURE PACKAGING

Delrin-New Container Material

National Packaging Show

Aerosol Food Check List

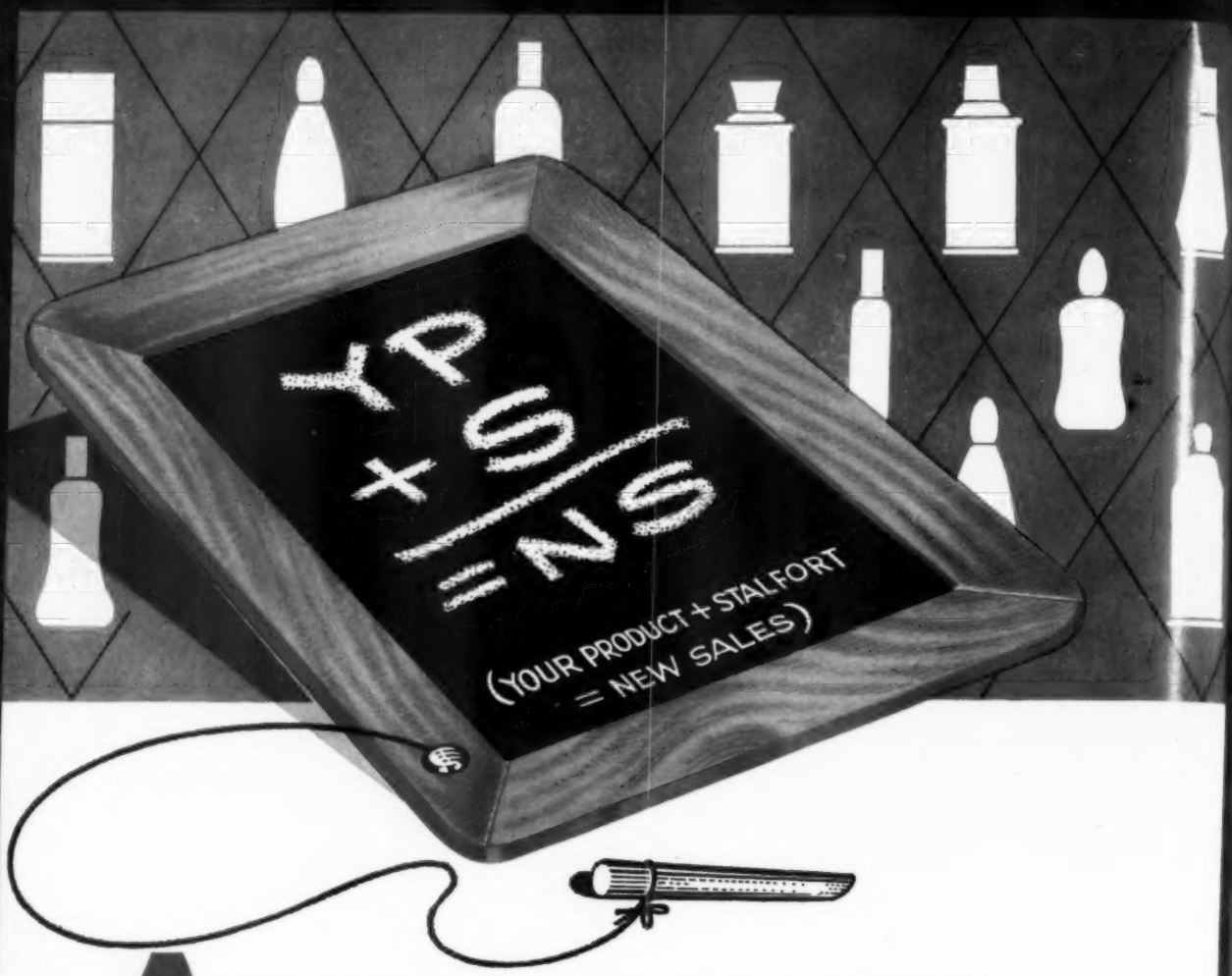
Food Additives Amendment

Silicones in Aerosols

Aluminum Cans for Food

Aerosol Sales Promotion

APRIL, 1959



AEROSOL PACKAGING IS THE KEY TO NEW MARKETS . . .

Limitless new sales horizons are opened to your product when it is aerosol packaged. Your packaging picture is not complete unless that product is available to the ever growing millions of consumers who are demanding the modern convenience of aerosols.

STALFORT will fill your liquid or powder concentrate in a metal or glass aerosol container, using an inert gas or liquified propellants. *Or,* we will prepare and package your own aerosol product in accordance with your own formula. *Or,* we will develop a formula for you and package it.

Your inquiries are invited; and they will receive the benefit of experience that pioneered and played a prominent part in developing today's aerosol techniques.

CUSTOM PACKAGING . . . . . .
Stalfort also packs private label cleaners, waxes, dyes, etc., in regular glass or tin containers.

JOHN C. STALFORT & SONS, INC.
319 W. Pratt St., Baltimore 1, Maryland

STALFORT

Revolutionary New MIST-MIZER Mechanical Break-Up Tip

What makes the new Mist-Mizer superior to any mechanical break-up tip now on the market? The answer . . . revolutionary new "Quadruple Jet Spray" design!

Instead of only one "path" or chamber to set up the action necessary for complete atomization of your product, the exclusive MIST-MIZER tip has FOUR inter-acting jet spray openings to thoroughly disperse and break up the product into millions of mist-like particles. This means you not only get greater atomization at any operating pressure, but you can often produce better products at lower cost . . . with savings that can more than pay for the entire valves!

Because the A. R. C. MIST-MIZER spray tips are molded in two pieces instead of only one, tolerances are much closer . . . assuring the greatest uniformity of spray pattern ever produced! And, with the insert of contrasting color, the user immediately recognizes the spray direction.

Whether you want to produce a better product or just save money, we know that MIST-MIZER Spray Tips will be on your next order! Prove it yourself . . . free! We'll gladly send samples for you to make comparison tests with any A. R. C. valves described below. Write today, telling us the type of product you want to test and the number of sample valves you'll need. There's no cost or obligation.

NOW AVAILABLE IN 3 STYLES OF VALVES

K-38
Tilt-action valve recommended primarily for unpigmented, non-aqueous products. For cold or fast pressure filling.

KN-38
Push-down type of valve primarily for cold filling. Best for powders, space sprays, foams, residuals etc.

AR-74
For cold and extremely fast pressure filling. Ideal for pigmented products. No internal metering. Clog-proof, removable stem design.

AEROSOL RESEARCH COMPANY

Dept. AA, 743 Circle Avenue, Forest Park, Illinois • Cable Address: AERESCO, Forest Park, Illinois

Do Your Aerosol Products STACK-UP Against Competition?

GILBERT PLASTICS' STACK CAPS	OLD-FASHIONED ORDINARY CAPS
MASS DISPLAYS	**MESSY DISPLAYS**
GILBERT PLASTICS' Stack Caps permit you to stack your products high, wide, and profitably . . . conserve valuable shelf space.	Products with old-fashioned caps just don't stack up. Tumbling, disorderly displays reduce sales impact . . . require additional shelf space.
SALES APPEAL	**SALES RESISTANCE**
Choose from an unlimited range of matching or contrasting colors to your specifications. GILBERT PLASTICS eye-catching, brilliant colors are molded in . . . will not chip or peel.	Ordinary caps often dent, scratch, peel and rust . . . greatly impairing the appearance of your product . . . reducing its eye-appeal and buy-appeal.
TOPS 'EM ALL	**LOST IN THE SHUFFLE**
Retailers give top position to aerosol products which stack up easily, quickly, neatly . . . look better . . . sell quicker . . . facilitate replacements. Little wonder that GILBERT PLASTICS' caps are the first choice of leading makers of aerosol products.	Old-fashioned caps create special stacking problems . . . require cardboard inserts for support and continual care to keep them stacked neatly . . . gravitate to the bottom shelves where they don't have too far to fall.

You can depend on GILBERT PLASTICS for all your aerosol closure needs.

Write for samples and prices today!

GILBERT PLASTICS, INC.

BORIGHT AVE., KENILWORTH, NEW JERSEY

Canadian Distributor: TWINPAK, Ltd., 6525 Somerled Ave., Montreal, Quebec.

British Affiliate: I-to-I PLASTICS, Bridge Close, Romford, Essex, England.

APRIL, 1959 VOL. 4, No. 4

AEROSOL AGE

The magazine of pressure packaging

THIS MONTH'S COVER

Latest in the pressurized foot comfort products is "Dr. Scholl's Foot Spray," which was recently introduced by the Chicago foot products firm. It is available at all Dr. Scholl Foot Comfort shops and at most department, shoe, and drug stores. It will retail for $1.25.

Feature Articles

DELRIN ACETAL RESIN—NEW AEROSOL CONTAINER MATERIAL 20
By J. N. Owens

NATIONAL PACKAGING SHOW 26

A CHECK LIST FOR PACKAGING PRESSURIZED FOODS 28

THE FOOD ADDITIVES AMENDMENT—WHAT IT WILL MEAN TO THE AEROSOL INDUSTRY 30

AEROSOLS IN GREAT BRITAIN 32
By A. Herzka

ALUMINUM CONTAINERS FOR FOOD PRODUCTS 35
By L. P. Gotsch, E. F. Eike, and K. W. Brighton

SILICONES IN AEROSOL PRODUCTS 38
By John A. Fisher

AEROSOLS IN REVIEW 42

SALES PROMOTION FOR THE AEROSOL INDUSTRY 47
By Donald L. Arends

Departments

IN THE SPOTLIGHT THIS MONTH 8

CONVENTION CALENDAR 8

NEW PRODUCTS AND PACKAGES 27

CONSULTANT'S CORNER 52
By Robert A. Foresman Jr.

NEWS OF PRESSURE PACKAGING 54

EQUIPMENT, PROCESSES & BULLETINS 64

CUSTOM FILLERS AND PACKERS 83

NEW PATENTS 89

CLASSIFIED ADVERTISEMENTS 91

INDEX TO ADVERTISERS 93

OVER THE TRANSOM 94

Wayne E. Dorland
Publisher

Donald A. Davis
Editor

Eleonore T. Kanar
Technical Editor

Tom C. Clark
European Representative

Ralph Dorland
Advertising Manager

Roger Appleby
Eastern District Manager

William Ryan
District Manager

Doris Metz
Circulation

Address all correspondence to Box No. 31, Caldwell, N. J.

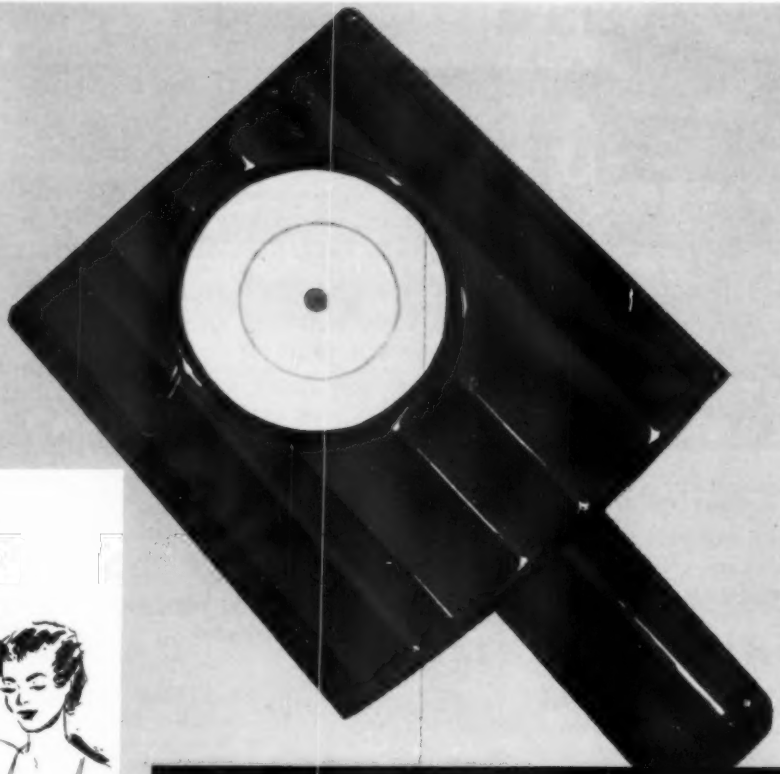
Subscription Rates: U. S., one year $3, two years $5; Canada and Pan America one year $4, two years $7; Foreign one year $7, two years $12.

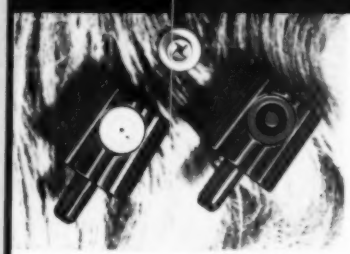
Single Copies: current issue: $0.50. Back issues $1.00. Postage and handling charges for foreign countries on single copies: $1.00.

Published monthly on the 25th by Aerosol Publications, Inc. at 229 West 28th St., New York, N. Y. Advertising, Subscription and Editorial Office: Box No. 31, Caldwell, N. J. New York telephone: BArclay 7-7121. Advertising rates on application. Closing date for copy—10th of the month preceding month of issue.

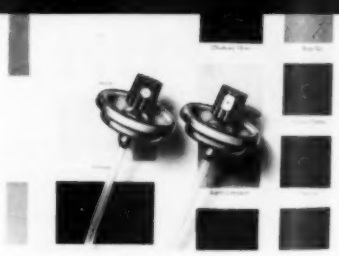
Second-class mail privileges authorized at Post Office Caldwell, New Jersey, with additional entry at New York, New York.

NEWMAN-GREEN DESIGN OFFERS





INTRODUCED NEARLY TWO YEARS AGO. **Newman-Green's mechanical break-up spray tip is working very successfully with hair lacquers, colognes, personal products, window cleaners, and a variety of other low-pressure formulations.**



NEWMAN-GREEN PAINT VALVES **are designed to clean easier, eliminate clogging due to build-up of paint particles, and give a pattern that is consistent and uniform. More and more manufacturers are using Newman-Green valves every day.**

TWO-COLOR TIPS AT NO EXTRA COST

Use Newman-Green Valves For Mistier Sprays, Real Quality, More Dependable Operation

The built-in quality available only in Newman-Green aerosol valves includes:

- *No small orifices drilled in metal parts.*
- *Delivery tubes swedged on—not slipped over —valve body.*
- *Spray patterns can be varied completely in seconds by changing only spray head.*
- *All metering orifices and spray heads are easily accessible for cleaning.*

In addition, the extra-plus you get from Newman-Green's two-tone spray tips (designed to blend or contrast with your label design) is at no extra cost. Such color contrasting assures quick, positive location of orifice opening and easier use of your aerosol package.

The Newman-Green valve design with built-in quality helps you cut production costs, assures better dispensing of your product with a more uniform pattern. Models are available for all types of metal or glass containers.

Always think first of Newman-Green for help in solving your aerosol valve designing, engineering and manufacturing problems. You will get both service and unsurpassed quality when you call your Newman-Green representative.

INSIST ON NEWMAN-GREEN VALVES.

You gain a competitive edge from built-in engineering quality that can't be matched in the aerosol industry. Service is prompt, and production geared for high volume.

Newman-Green offers a complete line of aerosol valves. For latest price schedules and/or free samples, please fill and send in this coupon.

NEWMAN-GREEN INC.
151 Interstate Road
Addison, Illinois

Name_____ **Position**_____

Company_____ **Address**_____

City_____ **State**_____ **(Country)**_____

Intended valve application_____

NEWMAN-GREEN *Creative Aerosol Valve Engineering*

151 Interstate Road, Addison, Illinois

INDUSTRY CALENDAR

Pharmaceutical Manufacturers Association, Annual Meeting, Boca Raton Club, Boca Raton, Fla. April 1-3

American Chemical Society, 135th National Meeting, Boston, Mass. .....April 5-10

National Sanitary Supply Association, 36th annual convention and trade show, Conrad Hilton Hotel, Chicago .....April 12-15

National Packaging Show of American Management Association, International Amphitheater, Chicago, April 13-16; packaging conference, Palmer House, Chicago..April 13-15.

Society of Cosmetic Chemists of Great Britain, British Congress of Cosmetic Science, London, England, April 15-17

EUROPAK 1959, 5th International Packaging Exposition, Amsterdam, Netherlands .....April 21-28

Society of Cosmetic Chemists, Commodore Hotel, New York, N. Y. May 7

International Aerosol Association, annual meeting, Zunfthaus Zur Meisen, Zurich, Switzerland..May 8

Toilet Goods Association, 24th annual convention, Waldorf-Astoria, New York .....May 12-14.

Institute of Food Technologists 19th annual meeting, Bellevue-Stratford Hotel, Philadelphia, Pa. May 17-21

Chemical Specialties Manufacturers Association, 45th Mid-year meeting, The Drake Hotel, Chicago May 18-20

International Symposium on Gas Chromatography, of The Instrument Society of America, The Kellogg Center for Continuing Education, East Lansing, Mich..June 10-12

European Federation of Aerosol Associations, first meeting (at International Congress of the Chemical Industry), Maison de la Chimie, 28 Rue St. Dominique, Paris, France June 26

National Agricultural Chemicals Association, Sheraton Lick Hotel, French Lick, Ind. .....Oct. 21-23

Packaging Machinery Manufacturers Institute, annual show, New York Coliseum, New York. Nov. 17-20

Toilet Goods Association, winter meeting of Scientific Section, Waldorf Astoria Hotel, New York Dec. 1

Chemical Specialties Manufacturers Association, 46th annual meeting, Mayflower Hotel, Washington, D. C.....Dec. 7-9

In the Spotlight this month

- **Delrin Acetal Resin—New Aerosol Container Material** . . . One of the most thorough articles ever written on an aerosol container material is the feature of this month's **Aerosol Age**. In an article on page 20, J. N. Owens, of DuPont's Polychemicals Department, writes about fabrication techniques, permeability, and possible fields of use.

- **Pre-Marketing Check List for Pressurized Foods** . . . Through the cooperation of the Food Liaison Committee of the CSMA, **Aerosol Age** publishes the first check list for aerosol food products. All phases of product preparation and quality control are outlined in the list, which begins on page 28.

- **The Food Additives Amendment** . . . This new and not very well known amendment to the Pure Food and Drug Act comes under the scrutiny of a board of experts at a special symposium sponsored by the Packaging Institute. Some of its implications for the aerosol industry are reported on page 30.

- **Aluminum Cans for Food Products** . . . Continuing its detailed coverage of pressurized food filling, **Aerosol Age** carries an article on some of the "basics" of fabricating and packaging foods in aluminum. A paper from the Canners Institute meeting in Chicago begins on page 35.

- **Silicones in Aerosol Products** . . . The whole range of special silicone applications for aerosol packaging is discussed in an illustrated article on page 38.

- **Sales Promotion for the Aerosol Industry** . . . This relatively unexplored field of aerosol knowledge comes in for new study in this **Aerosol Age** exclusive on page 47.

ANOTHER FIRST by **METAL FAB**

IT'S NEW...
IT'S NEW...
IT'S NEW...

Trigger-Tip
aerosol actuator

IT'S NEW!

METAL FAB'S OWN LOW-COST AEROSOL PERFUME DISPENSER WITH TRIGGER-TIP ACTUATOR — IN GLAMOROUSLY STYLED OUTER CASES (IN STOCK OR TO YOUR SPECIFICATIONS) *(Shown in hand above)*

SPECIFICATIONS

Cartridge	Stainless Steel	Glass
Contents	10 cc	10 cc
Height	2½"	3"
Diameter	½"	⅞"
Finishes	Polished Brass, Textured, Brushed, Enameled, Silk Screened, Debossed, Embossed or to your specifications.	

2 Ounce Dresser-Vanity Size Also Available in any design or specification, with new Metal Fab TRIGGER TIP actuating feature.

- Just press and spray
- No cap to remove
- Can't be accidentally dispensed
- New never-before-seen actuating feature (patent pending)
- Plastic actuating button in aluminum shell
- Fits all self-contained aerosol units (10 cc, 16 cc, 22 cc, 2 oz. and up)
- Choice of finishes
- Can be used with either metered or unmetered valve
- Low Cost

Patent Pending

National Sales Agents • **MONROE-DANFORD & CO.** • 50 48th St., P.O. Box 807, Weehawken, N. J.

Special Coatings and finishes on Containers and other Aerosol Components

Silk Screening • Printing on Containers

Metal Fabrications INC.
P.O. BOX 808 • WATERBURY, CONN.

For Performance

better buy

Prentiss Drug & Chemical Co., Inc.

101 WEST 31st STREET, NEW YORK 1, N. Y. • 9 SOUTH CLINTON STREET, CHICAGO 6, ILL.

Atlanta • Detroit • San Francisco • Los Angeles • Toronto • Montreal • Fort Worth • Pittsburgh • Philadelphia

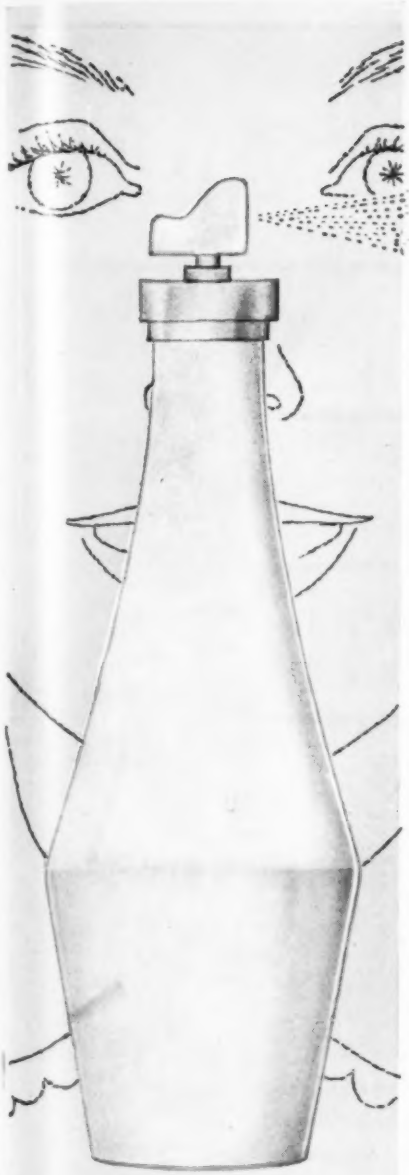
- **HIGHEST QUALITY PESTICIDE RAW MATERIALS**
- **TECHNICAL ASSISTANCE**
- **IMMEDIATE DELIVERY**

Prentox Pest-Tested Products

MALATHION • DDT • CHLORDANE • PYRETHRUM • DIELDRIN

LINDANE • HEPTACHLOR • ROTENONE • RAX POWDER (0.5% WARFARIN)

PYRONYL (PYRETHRINS AND PIPERONYL BUTOXIDE) • AEROSOL CONCENTRATES



Hair-spray container of ZYTEL® nylon resin is new, practical, has sales appeal.

Consumer research proves women are willing to pay more for aerosols in bottles made of Du Pont ZYTEL® nylon resins

"WOULD YOU BUY THIS NEW TYPE OF AEROSOL IF IT ADDED 15¢ TO THE PRICE?"—and 53% of all women queried answered YES.

". . . IF IT ADDED 30¢?"—and 43% still answered YES.

In fact, up to 75% of those women who expressed a preference for aerosols over other types of containers were willing to pay 15¢ to 30¢ more for the new type.

These were some of the results of a recent consumer survey carried out by an independent research organization. This survey proved that women will pay a premium price for cologne and toilet water packaged in aerosol bottles made of ZYTEL nylon resin.

The survey showed clearly that these nylon bottles add considerably to the sales appeal of personal products. One particular advantage stood out above all the others . . . 65% of all people questioned were strongly in favor of a non-breakable container for toiletries, and these bottles are just that. They bounce undamaged off tiled floors!

Consider also the advantages in styling—graceful shapes, combinations of built-in colors, lightness of weight and translucency that lets the customer see how much is there. Furthermore, ZYTEL is unaffected by propellents and most spray mixtures.

Details of this valuable survey are available to you on request. Send for your copy now. We also welcome technical inquiries concerning the design and use of ZYTEL* for aerosol containers.

DU PONT

BETTER THINGS FOR BETTER LIVING . . . *THROUGH CHEMISTRY*

Send ... facts on aerosols. New on the market, aerosols of ZYTEL may solve your packaging problem and make your sprayed product a much-talked-about item.

E. I. du Pont de Nemours & Co. (Inc.), Polychemicals Dept.
Room Z-14, Du Pont Building, Wilmington 98, Delaware

☐ **Send me your report: "COLOGNES AND TOILET WATER IN AEROSOL CONTAINERS—A MARKET STUDY OF CONSUMER ATTITUDES"**

*Name*_____

*Company*_____ *Position*_____

*Street*_____

*City*_____ *State*_____

*Type of Business*_____

IN CANADA: Du Pont Company of Canada (1956) Limited, P. O. Box 660, Montreal, Quebec

NEW AMMONYX 4002

SMOOTH

GENTLE

100% ACTIVE

Now Another 'First' by Onyx:
a full-bodied quaternary that provides high conditioning-ability with no skin irritation

AMMONYX 4002 is a recrystallized stearyl dimethyl benzyl ammonium chloride extremely substantive to hair and skin. Suggested applications include conditioning and static control in aerosol hair sprays and shampoos, hydrophobic emollient in creams and lotions, cuticle softener, palliative treatment for brittle nails, and anti-drying agent in high-staining lipsticks. Samples, technical information and dermatological studies are available on request.

Jersey City 2, New Jersey — Our 49th Year

NEW FORMULATION SERVICE . . . most up-to-date of its kind in America, to help fillers and marketers develop new aerosols, modernize older ones, profitably!

ALL REPRESENTATIVES TECHNICALLY TRAINED . . . you'll enjoy dealing with men who know aerosol markets, understand production problems.

ON-TIME DELIVERY of the quantity you need, from a nationwide network of distribution points.

YEARS OF EXPERIENCE back the high quality of UCON Propellants . . . and the technical assistance now available to you.

CARBIDE has long been active in emulsion technology, surface-coating technology, silicones, solvents, and the manufacture and handling of gases . . . all associated with the aerosol industry. Thus, UCON Propellants are a logical extension of CARBIDE's research and development programs.

For more information, write: UCON Propellants, Union Carbide Chemicals Company, 30 East 42nd St., New York 17, N.Y. Call, write or wire us, today! Attention, Dept. A-4

UCON and UNION CARBIDE are registered trade marks of Union Carbide Corporation.

UNION CARBIDE CHEMICALS COMPANY
Division of Union Carbide Corporation

UNION CARBIDE
Ucon

UCON Propellants are available in five grades

UCON Propellant 11 Trichloromonofluoromethane
UCON Propellant 12 Dichlorodifluoromethane
UCON Propellant 22 Monochlorodifluoromethane
UCON Propellant 113 Trichlorotrifluoroethane
UCON Propellant 114 Dichlorotetrafluoroethane

B.P.D.

BOMBRINI PARODI-DELFINO

Licensee for manufacture in the U.S.A.
Aluminum International Inc
GENERAL OFFICES: 1855 BLAKE STREET
DENVER 17, COLORADO
TERMINAL BOX 5108 MAIN 3-5131

No crimps, no solderings, no seams, no cements, NO LE ERS!

Maximum resistance to pressure: distortion of the container's bottom occurs at

Minimum weight: a 12 oz can weighs 1.41 ozs, a 6 oz can we

Full range of sizes to meet any requirement of the aerosol industry: wide choice of diameters, lengths and shape

Standard 1" opening to fit any normal cup-type aerosol valv

Perfect decoration of the cans; base-lacquering in any color plus lithographic printing in up to four color

All containers may be internally coated with special lacquers if they are to be filled with corrosive product

BOMBRINI PARODI-DELFINO - 267, VIA DEL CORSO - ROME, ITAL

build your sales with

versatile

Geigy

DIAZINON

for more effective residual household insecticides

Versatile Geigy Diazinon gives effective broad spectrum control and long residual action.

When you formulate with Diazinon, you take an effective step toward higher sales volume, quicker turnover, and greater customer satisfaction.

Put Diazinon to work in your formulations. Let this effective multi-purpose phosphate insecticide make your quality finished sprays a greater money-maker and a higher volume operation.

roaches, ***(including resistant strains),*** ***flies, silverfish, fleas, ants, brown dog ticks, chiggers, lawn chinch bugs***

ORIGINATORS OF Geigy DDT INSECTICIDES

For more information, address Technical Department:

GEIGY AGRICULTURAL CHEMICALS
Division of Geigy Chemical Corporation
Saw Mill River Road, Ardsley, N. Y.

Dr. Paul A. Sanders joined the Du Pont Company as a research chemist in 1940, after obtaining his Bachelor of Science and his Ph.D. degree in organic chemistry from the University of Minnesota.

Assigned to the company's Jackson Laboratory at Deepwater Point, N. J., Paul was active in studies leading to a number of patents in the fields of fluorescent whitening agents and stabilization of neoprene and other synthetic elastomers to light and heat. In 1953, he was assigned as a research chemist on aerosol propellents and aerosol applications and two years later joined the staff of the "Freon" Products Laboratory, where he has continued to work in the aerosol-propellents area.

Paul Sanders' work on water-in-oil emulsion systems for aerosol products has made possible a host of new aerosol products which were previously impractical. He and the many other chemists and technicians at the "Freon" Products Laboratory are continuously working to extend the frontiers of knowledge for the aerosol industry.

"Formulation techniques developed by basic Du Pont research help our customers create new uses for aerosols"

says Dr. Paul A. Sanders of Du Pont

"Basic research at Du Pont is helping shape the future of the aerosol industry," says Paul Sanders of Du Pont's "Freon" Products Laboratory. "Recent work here on water-in-oil emulsions, for example, makes possible the preparation of water-based products in aerosol form which previously could not be sprayed satisfactorily. With this new system, disinfectants, pharmaceuticals, room deodorants and many more products compounded of water-soluble ingredients can now be dispensed in a misty spray from an aerosol. We have donated this information to the aerosol industry to help our customers create new markets for aerosols."

Basic research creating improved aerosol techniques is just one of the advantages you get at no extra cost when you buy propellents from Du Pont. Loaders or marketers of aerosol products can take advantage of many sales-building services which only Du Pont offers.

In marketing, Du Pont surveys help you expand sales of your products. With national advertising and promotion, Du Pont works continuously to build markets for aerosols, bringing you a steady flow of new customers. In technical service, Du Pont's know-how and experience can help you with aerosol development or solution of production problems. In manufacture of Freon* Du Pont makes aerosol propellents recognized throughout the industry for their quality, performance and properties. And only Du Pont gives you virtual local delivery service from three plants in the U. S., one in Canada and a network of warehouses.

If you have a problem in any area of aerosol development, production or marketing, call or write the Du Pont office nearest you. And be sure to buy "Freon" for all your propellent needs.

FREON® propellents

**Freon and combinations of Freon- or F- with numerals are Du Pont's registered trademarks for its fluorinated hydrocarbon propellents.*

E. I. du Pont de Nemours & Co. (Inc.)
"Freon" Products Division 324
Wilmington 98, Delaware

DISTRICT OFFICES

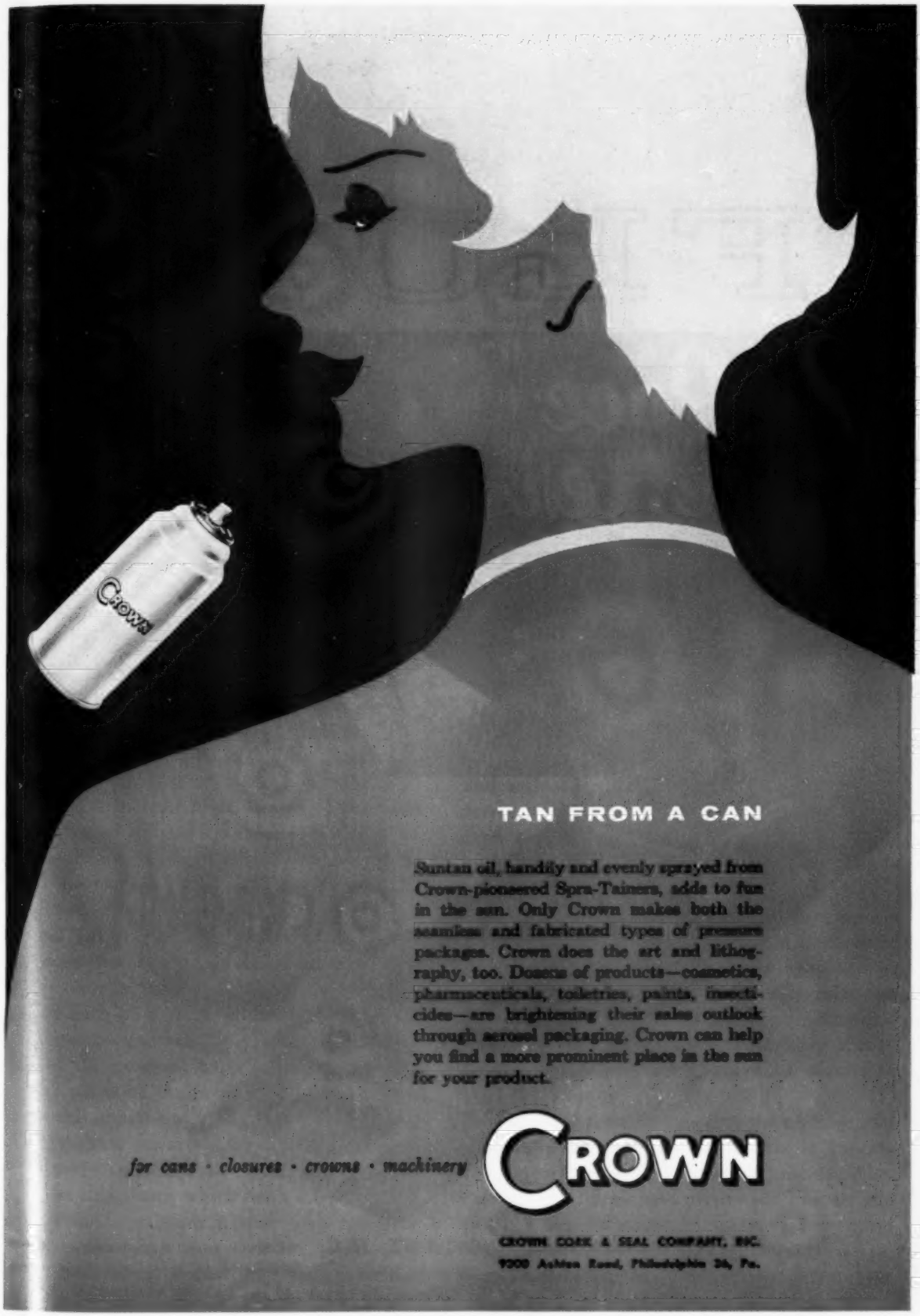
40 Worth Street
New York 13, N. Y.

7 S. Dearborn Street
Chicago 3, Illinois

701 Welch Road
Palo Alto, Calif.

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY



TAN FROM A CAN

Suntan oil, handily and evenly sprayed from Crown-pioneered Spra-Tainers, adds to fun in the sun. Only Crown makes both the seamless and fabricated types of pressure packages. Crown does the art and lithography, too. Dozens of products—cosmetics, pharmaceuticals, toiletries, paints, insecticides—are brightening their sales outlook through aerosol packaging. Crown can help you find a more prominent place in the sun for your product.

for cans · closures · crowns · machinery

CROWN

CROWN CORK & SEAL COMPANY, INC.
9300 Ashton Road, Philadelphia 36, Pa.

FLUID

Pace Setters...

IN CONTRACT AEROSOL Pharmaceutical PACKAGING

FLUID **CHEMICAL COMPANY, INC.** 878 Mt. Prospect Ave., Newark 4, N. J.
Newark, N. J.—HUmboldt 4-1000 • New York, N. Y.—WHitehall 3-0540
TWX #NK 747 (Teletype—Newark, N. J.) • CABLE: FLUIDKEM

EDITORIALS

Another Year of Publicity . . .

April 15 will mark the beginning of the third year of the publicity campaign of CSMA's Aerosol Division. Plans are being completed to make the 1959-1960 campaign the most far-reaching and generally effective to date, and an extra effort will be made to achieve added coverage in the merchandising as well as the consumer press.

Looking back over the last two years of publicity successes directly attributable to this program, CSMA members (and the aerosol industry in general) can view with pride the accomplishments of this "moderately priced investment" in the future of the aerosol industry. For a few tens of thousands of dollars the publicity program has succeeded in having key feature articles placed in leading periodicals (such as *Coronet*, *American Home*, and the *New York Times*). What may be overlooked is the fact that, if these placements were estimated at the advertising page rate of each of these periodicals, the figure would be many times the entire budget of the Aerosol Division's publicity program.

By skillful and diligent management of the funds contributed, the Committee has been able to make the efforts of its public relations agency snowball with no increase in funds. This is evident from the fact that the solid accomplishments of the program for the second year far outweigh those of the first—and all indications are that this impetus will continue.

This program deserves the whole-hearted support of every member firm of the Aerosol Division. Even those firms which don't have any real public relations program of their own can participate in the program at nominal cost. This applies to fillers, suppliers, consultants, and the many other firms, which may not really fit into a category of their own, but which do have a stake in some phase of pressurized packaging.

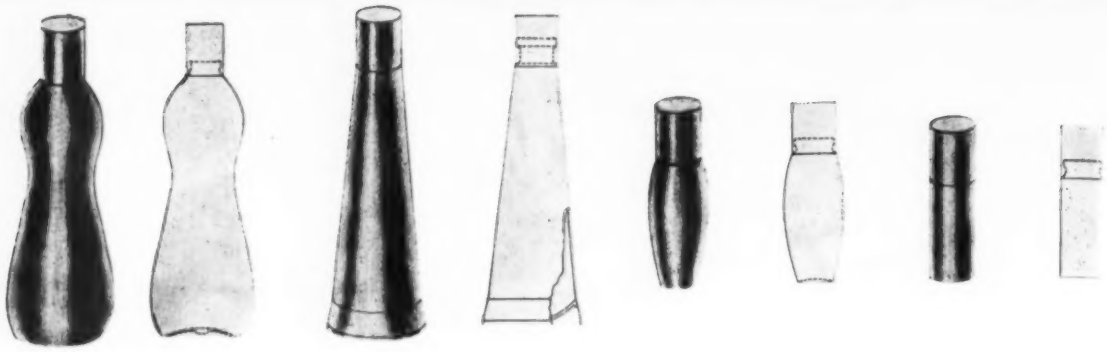
A European Federation . . .

The leading aerosol interests in Europe have finally found a solution to the nationalistic-geographical disputes that were keeping the aerosol industry there from organizing a sound international association. Under the terms of the agreement signed to form the Federation of European Aerosol Associations, each national trade group will have a voice in the new federation, and the president and other officers will be elected from among the officers of the various national organizations.

This compromise has genuine merit, for it overcomes the objections of geography, language, and nationality in one fell swoop. It should also facilitate the exchange of technical information from one country to another, and in time should enable the aerosol industry to take far better advantage of the European Free Market.

Furthermore, it will give the European aerosol industry both a voice and a direction at the same time. It should go far toward achieving some type of sensible rewriting of government regulations, to the maximum benefit of aerosol packagers and suppliers. And, in the future, it might be able to do much to educate the European consumer to the aerosol idea.

It is for all these reasons that the U. S. aerosol industry will be watching closely the first meeting of the federation in Paris on June 26. Also, so many U. S. firms have interests in Europe, and so many new technical developments are bound to come from the aerosol chemists of Europe, that the meeting has genuine significance for aerosol people throughout the world.



Delrin Acetal Resin . . . .

By J. N. Owens
Plastic Sales Division, Polychemicals Dept.
E. I. du Pont de Nemours & Co.
Wilmington, Del.

ATTRACTIVE bottles have been made from "Delrin" at the Du Pont sales service laboratory by both injection molding and extrusion blow molding techniques. These bottles were tested with good results over the past several years with such aerosol formulations as hair sprays, colognes, anti-perspirants, and shampoos. Sample bottles of "Delrin" have also been tested by other companies, and the shelf life storage test results obtained by these companies have generally confirmed results obtained by DuPont personnel. Sample bottles are available from Du Pont for scouting type tests and are also available from several injection molders and at least one blow molder.

"Delrin" is the registered trademark for a new thermoplastic developed from basic research studies by DuPont. A commercial plant is under construction at Parkersburg, West Virginia, to produce "Delrin" by mid-1959. Basically, "Delrin" is made from formaldehyde into what Du Pont chemists call a linear acetal resin. It is translucent in its natural state, but can be pigmented or decorated to produce many attractive visual effects.

Because of its high strength, "Delrin" was considered early as an excellent engineering material for aerosol containers. It offers a distinct combination of advantages over many conventional packages, including styling, freedom from corrosion, and light weight. These advantages can be merchandised in the toiletries and patent medicine markets. For example, a half-ounce to two-ounce bottle should be practical for traveling, carried in the glove compartment of a car, or in a purse or pocket. For career girls, a need is indicated for an attractive, lightweight one- to two-ounce aerosol hair spray, ideal in a stylish bottle of "Delrin." Markets characterized by a need for convenience and/or style are particularly suitable for plastic aerosol containers.

It is too early to say what the ultimate cost will be for aerosol bottles made of "Delrin." However, on a strictly raw material cost basis, using the announced introductory truckload quantity price for "Delrin" of 95 cents per pound, an undecorated, 30 mil wall, four-ounce container of "Delrin" weighing 18 grams would have a material cost of approximately $40 per thousand bottles. A half-ounce purse aerosol container weighing four grams would have a material cost of approximately $9 per thousand containers. To the material cost, of course, must be added the expense of manufacturing the bottles. There appears to be sufficient leeway between the cost of the material, especially in the smaller bottles, and the cost of conventional packages to give competitive bottle makers as well as aerosol marketers an incentive to use "Delrin."

DECORATION, an important facet of package design, has not been overlooked with "Delrin." The new material is available in attractive colors, and injection-molded bottles in particular show high gloss and sparkle. Molded surface textures to add variety and interest are possible with "Delrin." Offset printing, with a five minute bake at 300°F. to insure excellent adhesion of the ink, has been done by the Markem Machine Co., Keene, New Hampshire. Silk screen printing is satisfactory, and "Delrin" can also be painted. A primer coat, developed by the Du-Pont's Fabrics & Finishes Department, is followed by a top coat and a 20 to 30 minute bake at 305°F. The resultant coating resists the "Scotch" tape test, boiling water, and other common test procedures. Recently, Du Pont engineers have learned to metallize "Delrin," since a textured metallized surface of "Delrin" can make a most attractive package that many lady buyers will undoubtedly find hard to resist.

Chemically, "Delrin" solves the problem of corrosion, a major concern in aerosol packaging, since it resists all organic solvents, including

. . New Aerosol Container Material

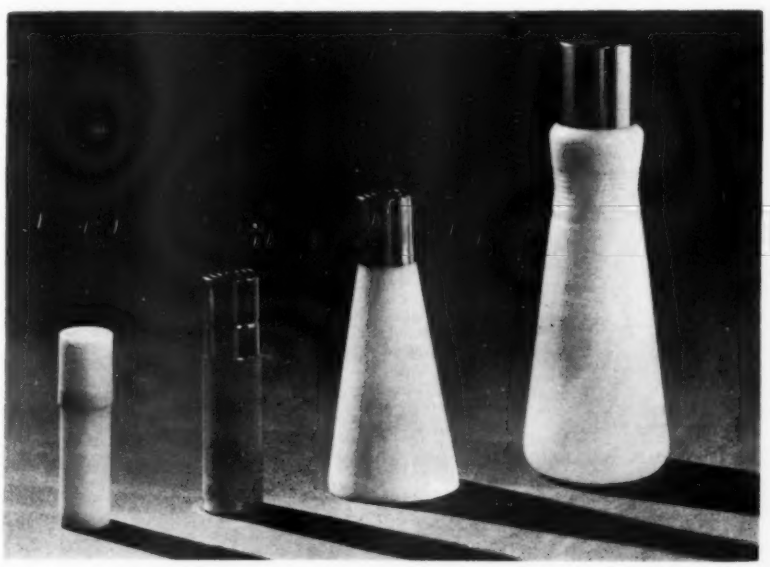
Part I of a Two-Part Article

the commonly used propellants, and also most aqueous solutions. Bottles or test bars never became tacky or gummy even when absorbing small quantities of the more compatible solvents. Although "Delrin" *is* attacked by strong mineral acids, exceptionally strong ammonia solutions, and certain chemicals rarely used in aerosol containers, its general chemical properties should be well suited for pressure packaging. In addition, evidence of stress cracking has *not* shown up in practical tests run on aerosol containers. Some chemical resistance data are shown in Tables I. II, and III.

THE stain resistance of "Delrin" has been particularly outstanding in practical tests. Heavy coatings of lipstick and mustard were the only two stain producers, in numerous tests run at room temperature. Fountain pen barrels carried and used for three years were not stained. At 200°F. or higher, staining *can* occur. "Delrin" can be dyed readily at elevated temperatures and can provide two tone coloring possibilities for striking appearance, but this will probably see limited use in bottles.

Permeability is another important property for aerosol containers. "Delrin" has relatively low permeability to most perfumes, oils, aerosol propellants, and non-polar solvents, and probably an acceptably low permeability to ethyl alcohol for many applications. Permeability to such products as water, acetone, and ethyl aceate may be borderline or unacceptable. For example, a four-ounce Boston round bottle of 30 mil wall thickness was filled with a water based aerosol formulation and welded shut to eliminate valve leakage. Weight loss was approximately eight grams of water after one year of storage at 73°F. and 50% humidity, in the laboratory. The same type of bottle, containing a typical formulation of ethyl alcohol and "Freon" propellant, lost about two grams of alcohol in one year. Losses were insignificant for propellants "Freon-11," "Freon-12," and "Freon-114," and nitrogen gas. To simulate losses in a commercial bottle, one must also consider valve leakage, which can occur regardless of the container material. In the DuPont tests losses from valve leakage varied from zero to four grams per year as shown in a comparative one-year test.

There *are* several possible ways of reducing water permeability losses. Since many aerosol containers may



"Delrin" containers can be injection or blow molded in a variety of sizes, shapes, and colors. Textured surfaces, embossing, and a variety of other decorative effects are possible with "Delrin." At top of page: other blow-molded and injection molded containers possible with "Delrin."

TABLE I
"DELRIN" IS UNAFFECTED* BY:

Class	Members Tested	Test Conditions: Time	Test Conditions: Temperature
Aliphatics	gasoline, kerosene	9 mos.	140°F
Aromatics	benzene, toluene	9 mos.	140°F
Alcohols	methanol, ethanol	9 mos.	140°F
Ethers	dioxane	9 mos.	140°F
Esters	ethyl-acetate, methyl salicylate	9 mos.	140°F
Ketones	acetone	9 mos.	140°F
Aldehydes	butyraldehyde	9 mos.	140°F
Halogenated hydrocarbons	CCl_4 "Freon" propellant	9 mos.	140°F
Cyclic terpenes	turpentine	9 mos.	140°F
Fatty oils	linseed oil	12 mos.	95°F
Fatty acids	oleic acid	12 mos.	95°F
Weak organic bases	pyridine, aniline	9 mos.	140°F
Amides	dimethyl formamide	9 mos.	140°F
Most inorganic salts	10% NaCl, 43% LiCl, 10% NH_4Cl	9 mos.	140°F
Some inorganic bases	10% NaOH, 10% $Ca(OH)_2$	9 mos.	73°F
Strong detergents	50% 'Igepal,' 10% "Duponol" ME	12 mos.	73°F

* No chemical attack during storage.
*No loss in tensile strength when measured at room temperature before and after storage.
*No gross softening or swelling, although some losses in stiffness and some dimensional changes could be measured.

be packaged in decorative unit cardboard cartons, the idea of a foil-paper label laminated to the carton is currently being studied. Also, foil labels applied to cylindrical bottles may prove an effective barrier. In addition, a presale overwrap of such film as polyethylene may prove to be a sufficient barrier, as well as a means of protecting the surface gloss of the aerosol container itself.

Table IV summarizes permeability factors obtained from testing bottles of "Delrin." Information on Figure 1 has been helpful in making permeability loss calculations using the data from Table IV. Other permeability data have been published[1] and many well-known companies have measured permeability rates for "Delrin." In general, test results have been consistent. Appendix A is a technical discussion and interpretation of DuPont permeability test results for the aerosol laboratory to consider.

Design will have a significant effect on the cost of the aerosol container, especially for the larger sizes. Design affects not only the amount of material needed but also the wall thickness distribution, which in turn affects production rate. Faster production rates may prove to be a highly significant factor. Efficient design for minimum use of material means thinner walls and faster production rates, all adding up to economy.

Appendix B discusses design and its effect on cost and should be particularly useful to the package designer and package engineering section.

Bottles of "Delrin" can be fabricated by two basic processing steps. The first is blow molding, a method used successfully in several commercial units as well as on the equipment at the Du Pont sales service laboratory. These bottles are blown as one piece, followed by the usual neck trimming operation. The second method is injection molding, the bottle being made in either a one piece or a two piece design. The two piece design is made into a single aerosol unit by a rapid, efficient, spin welding technique.[2] Also, the two piece design can be joined by means of a crimped metal ring, as has been demonstrated by the Precision Valve Corp.[3] In this design, the bottle functioned as the valve cap as well. Designs having

TABLE II
"DELRIN" IS RESISTANT** TO:

Class	Members Tested	Test Conditions: Time	Test Conditions: Temperature
Weak organic acids	citric, boric, lactic	1 year	95°F.
	5% acetic	1 year	158°F.
Weak bases	Buffer pH 10	1 year	158°F.
Mild oxidizing agents	10% potassium permanganate	1 year	140°F.
Mild bleaches	10% sodium hypochlorite	1 year	140°F.

**Either of the two results below placed "Delrin" in the "Resistant" category.
1. Slight but statistically significant losses in strength were measured in some cases.
2. Slight surface attack was noticed in some cases.

TABLE III
"DELRIN" IS ATTACKED*** BY:

Class	Members Tested	Test Conditions: Time	Test Conditions: Temperature
Strong mineral acids	>10% nitric	9 mos.	73°F.
	>10% hydrochloric	3 mos.	73°F.
	>10% phosphoric	3 mos.	140°F.
	30% sulfuric	6 mos.	73°F.
	1% sulfuric	1 year	95°F.
Strong organic acids	>20% acetic	3 mos.	140°F.
Strong nitrogen bases	>10% NH_4OH	3 mos.	73°F.
	butylamine	3 mos.	140°F.
Phenol	phenol	3 mos.	140°F.

***Either gross weight loss or gross strength loss placed "Delrin" in the "Attacked" category.

minimum assembly operations will, of course, tend to be more economical.

There *are* relative merits in each bottle manufacturing process, with probably no unequivocal answer as to which is best. One distinct advantage of blow molding is the possibility of forming large and graceful undercuts. Also, blow molds are more economical because of lower pressures required in the blow molding operation. On the other hand, injection molding offers better control over wall thickness in critical areas such as the neck finish and bottom. Special design features such as ribs, skirts or leg projections on the bottom can also be molded. The design itself may dictate which process is best. This may be learned early in the design stage by consulting bottle manufacturers.

A neck finish exactly like that of standard glass aerosol containers worked well to accept standard aerosol valves. Simpler finishes offer cost savings, and at least one, on an injection molded purse size container made by Wilmington Plastics Co., has been crimped satisfactorily in standard equipment of Mojonnier Associates, Inc.

These advances in testing, bottle manufacturing, design, and material will surely expand the use of plastic aerosol containers. Exciting styling, beautiful colors, and intricate surface patterns are all offered to merchandising managers through "Delrin." Economy is also possible, especially in the smaller, convenient sizes. The high strength and crystalline nature of "Delrin" afford excellent opportunity for faster production rates, a key cost factor. In summary, the properties of "Delrin" seem ideal for a large segment of aerosol products.

Appendix A

PERMEABILITY is important with respect to packaging in plastics. This section of the article is meant to further describe Du Pont permeability test results and interpretations on "Delrin" and should be particularly useful to the aerosol laboratory which has the responsibility of technical judgments on new packages.

TABLE IV

PERMEABILITY* FACTORS FOR "DELRIN" ACETAL RESIN

	*Permeability Factor**	
	at 73°F., 50% RH	*at 100°F.***
Aerosol Results		
A. Ethyl alcohol—propellant solutions		
Hair Spray formulations	0.8	6.0
Cologne formulations	0.6	4.5
B. Water-propellant mixtures		
Shampoo formulations	2.4	8.5
80% water, 20% "F-12"/"F-114" (20/80)	2.1	—
20% water, 80% "F-12"/"F-/114" (20/80)	2.1	—
C. Various propellants		
"F-12" "F-11" (30/70)	<0.2	<0.54
"F-12"/"F-114" (20/80)	<0.2	<0.42
Nitrogen at 90 psig.	0.05	—
Nitrogen at 90 psig. plus water	3.0	—
Carbon dioxide—nitrous oxide at 90 psig.	1.0	—
Carbon dioxide—nitrous oxide at 90 psig. plus water	3.0	—
CH_2Cl_2 and "Freon-12"	300.0	—
Non-Pressurized Results		
Oils		
Mennen's baby oil	~0	~0
Johnson & Johnson baby oil	~0	~0
Motor oil	~0	~0
Olive oil	~0	—
Non-polar solvent based products		
"Ronsonol" lighter fuel	gain	.01
Carter's rubber cement	*gain*	.17
Paste shoe polish	~0	.19
"Dissolvo" tar and road oil remover	.03	.19
Gilsonite caulking compound	.05	.27
"Unguentine"	gain	.21
Custom tinting color	~0	.40
n-Heptane	gain	—
Perchlorethylene	0.2	—
Toluene	0.6	—
Turpentine	0.02	—
Methyl salicylate	0.3	—
Sloan's Liniment	—	.05
Vick's "Vaporub"	.02	.093
"Carbona" cleaning fluid	.34	.47
Marsh Ink	—	.80
Polar solvent based products		
Revlon nail polish	2	7.2
"Duco" cement	10	28
Trichlorethylene	25	56
Water based products or emulsions		
Water; "7" Polish; Speedy Cleaner; Chrome and Metal Polish; "7" White Wall Tire Cleaner; "Ipana Plus"; Hunt's Tomato Catsup; "Calodryl" Lotion; "Skuff-Kote" liquid shoe polish; Miracle Whip Salad Dressing; Pond's Cold Cream; A-1 Sauce; Gulden's Mustard; "Lilt" Waving Lotion; "Speed Up" Ammonia; Jergens Lotion; "Shear Velvet"; "Wildroot" Cream Oil Hair Tonic	2-4	7.8-16
Ethyl alcohol—water solutions		
90% alcohol by weight	gains	—
90% alcohol by weight	0.25	—
70% alcohol by weight	1.5	7.8
50% alcohol by weight	2.1	11
Gas Permeability, cc/100 in. 2/24 hrs./mil/atm		
Oxygen	12 - 17	—
Carbon dioxide	37 - 50	—

*Gms. per day per mil wall thickness per 100 sq. in. of wall area, calculated from observed steady rate losses from four ounce bottles of various wall thickness, 15 to 40 mils.

**Interpolated on a graph similar to Figure 1, by a line drawn between actual data points at 73°F., 50% RH, and 130°F.

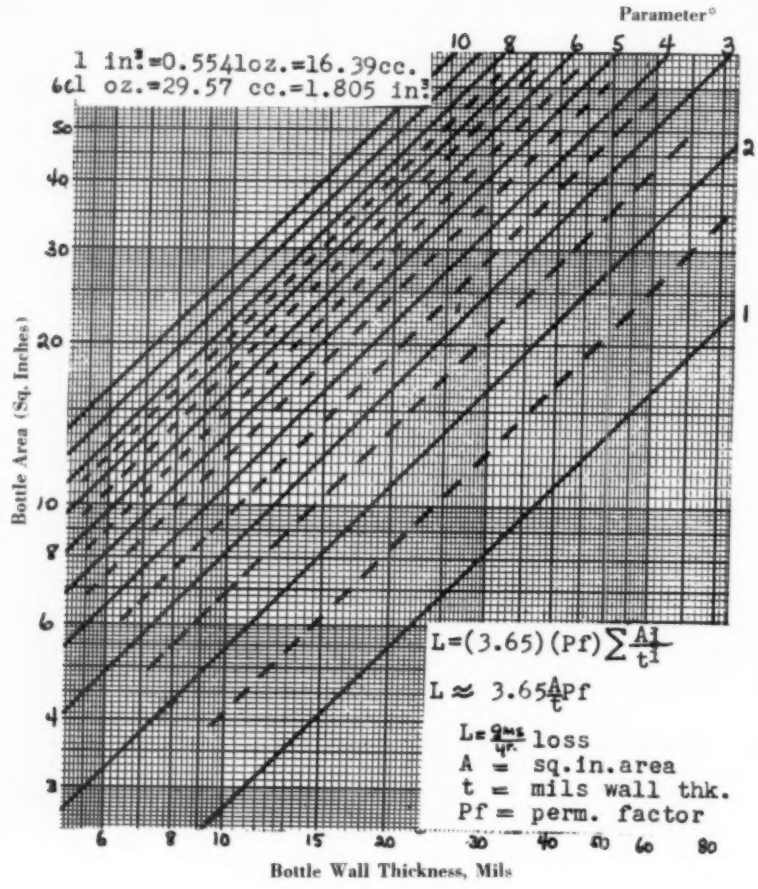


Figure 1

Chart for estimating one-year permeability losses — multiply parameter* value by permeability factor from Table IV to obtain L (Grams loss in one year).

A permeability factor is a number which can be used to predict permeability losses. However, it should be emphasized here that predicting permeability losses is always at best a calculated risk, and specific product tests should always be made. The factors listed in Table IV were calculated from measured weight losses obtained in storage tests of the bottle with its contents. Thus, actual measured weight losses are changed to a common numerical basis, called the permeability factor. Its advantage is that it may be used to predict weight losses by packagers considering various container designs.

Permeability factors increase exponentially with rising temperature for "Delrin," as for most plastics. It is useful to plot permeability factors as shown in Figure 2, so that the effect of temperature is clearly shown. The slopes of the lines for all permeants do not have to be similar, yet from experience with polyethylene one expects permeants of similar characteristics (chemical family, size, polarity, etc.) to have similar slopes.

Weight loss rate comparisons between aerosol and non-pressure bottles containing alcohol and water formulations show that internal pressure has no significant effect on permeation rate of *liquids*. The role of pressure in changing the concentration of permeants in the "Delrin" surface layer is the important point to consider. Applying pressure inside the aerosol bottle does not seem to be effective in increasing the supply of permeants already available in the surface layer. For this reason, we have considered all of the data in Table IV (whether measured on aerosol bottles or on non-pressured bottles) as being useful for estimating losses of aerosol products. Gas permeability data are the exception, where pressure must be considered as a driving force.

Tests show no appreciable difference between injection-molded aerosol bottles of "Delrin" 500X and blow-molded aerosol bottles of "Delrin" 150X for water permeability. This agrees with theory, since there should be no significant effect due to differences in molecular weight of the resin itself, which is the difference between these two series of polymers. In addition, tests with water and with ethyl alcohol in non-pressured bottles show no effect of wall thickness on permeability factors. Data published[4] on polyethylene film and sheeting of widely varying thicknesses did not show more than a two-fold effect in the range 0.020-0.050", which is not a major factor for most permeability cases. Since polyethylene as fabricated has a wider range of crystallinity than "Delrin," this is strong supporting evidence that permeability factors for "Delrin" will be useful in permeability loss calculations.

Measured loss rates were essentially the same, regardless of fill, so long as reasonable quantities of permeants were present. The Plax Corp. published data[5] which show that fill has practically no effect on the weight loss rate for polyethylene. Whether a bottle is partially or completely full, the weight loss rate seems to stay the same for plastics.

The permeability of "Delrin" to O_2 and CO_2 gases was measured in several standard experiments at a one atmosphere pressure differential. The results are listed at the bottom of Table IV. Data at 90 psig, pressure for several commonly used gaseous propellants, are also presented in Table IV. In particular, nitrogen gave excellent results as a propellant at 90 psig. Although this may seem like a high pressure for a plastic aerosol container, there is a compensating factor which should not be over-

looked. Nitrogen pressure rises only two psi per 10 degrees Fahrenheit rise (from 90 psig to 96 psig) in going from 70 to 100°F. A typical low pressure formulation employing "Freon" propellants has a pressure rise of 25 psi for the same rise in temperature, from about 20 psig to 45 psig. Another 30°F. temperature rise would put an aerosol container using either propellant on the same design pressure basis.

Prediction of permeability losses of multi-component solutions and mixtures is sometimes difficult because driving forces are not well understood. Ethyl alcohol, water, "Freon" propellants, perfume oil or other oils, soaps, polymers, solids — all these and probably thousands of other things are currently being formulated in aerosol toiletries. Permeability tests were made on pure compounds selected from representative classes as well as on commercial products. Through comparisons of the data it could usually be deduced *which* compounds were being lost from the commercial products. For example, tests made with 100% propellant showed practically no loss. Propellant plus ethyl alcohol or propellant plus water gave the same result as did ethyl alcohol or water alone. Water-based products lost weight as though only water were present, when other fast permeators were not present. Solids, polymers, and various oils did not permeate, and perfume odor retention was excellent. All of these facts correlated well enough to simplify drawing conclusions for some mixtures.

One important component in many aerosol toiletries, ethyl alcohol, was tested specifically to learn more about weight changes of alcohol based products. These changes were found to be complicated by water permeation. We can draw an analogy between an open dish of absolute ethyl alcohol and a packaged aerosol formulation based on ethyl alcohol, both stored at 73°F. and 50% relative humidity. The open dish loses alcohol by evaporation but at the same time absorbs water from the air until an equilibrium mixture is reached, the escaping vapors then having the same composition as the liquid. A similar process occurs for the aerosol formulation packaged in "Delrin." In a sense, the evaporation rate is slowed down by introducing a barrier of "Delrin." At the same time ethyl alcohol permeates out through the bottle wall, water permeates in, only much faster, so a net weight gain is observed at first, until at last equilibrium is attained, when a steady, but relatively slow, loss of a 90-10 alcohol-water mixture ensues. But suppose we started off with hundred-proof whiskey in a nitrogen pressured aerosol. Since the water concentration here is far beyond the ethyl alcohol-water equilibrium value (50% water instead of about 10%), water is lost through the wall at a rate almost as though the bottle were full of water. In addition, ethyl alcohol is lost almost as though the bottle were completely full of ethyl alcohol. The water concentration decreases until an equilibrium mixture (about 90-10) is attained, when the total weight loss rate changes radically to the much lower loss rate of the alcohol alone (actually, the loss rate of the 90-10 equilibrium mixture).

In the three phase system: fluorinated hydrocarbon propellant, water, and accompanying vapors, the permeation loss was essentially the same regardless of the proportions of ingredients. That is, loss rates were equal to those obtained for a bottle full of water. Enough water somehow

(*Continued on Page* 85)

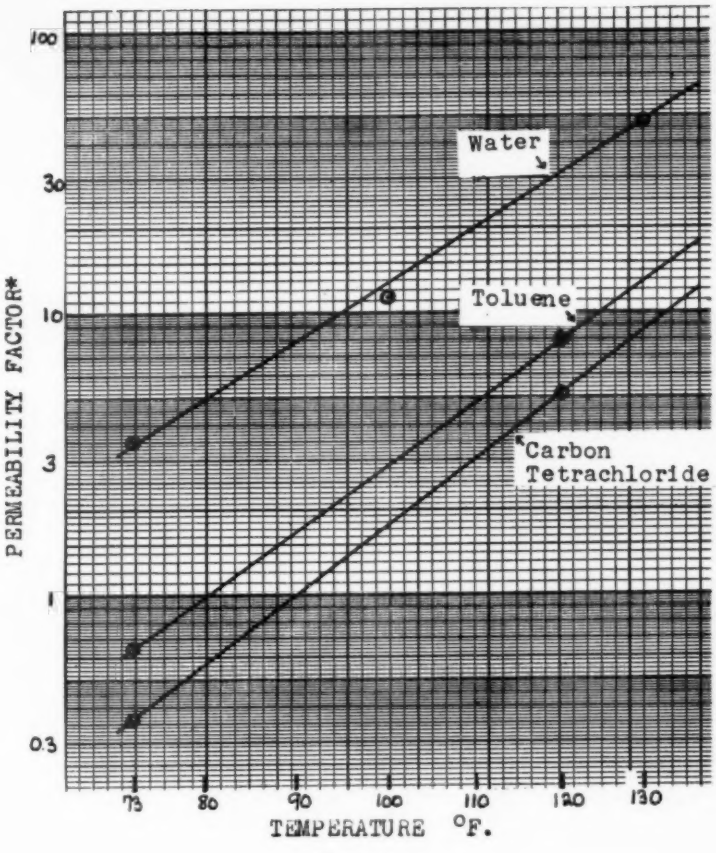


Figure 2

Effect of Temperature on the Permeability Factor
(*Grams per 24 hours per 100 sq. in. per mil) of "Delrin"

Packaging Show

Aerosol exhibitors abound as largest show in history begins in Chicago

AEROSOL suppliers, fillers and marketers will be very much in evidence in Chicago this month as they gather for the AMA's 28th National Packaging Exposition and Conference April 13-15. Not only will they be much in evidence among the 400 exhibiting firms, but a good portion of the Conference will be devoted to aerosol and allied subjects.

This year's exposition will be the first five-day packaging show to be held in Chicago, as well as being the largest such show in history. At the International Amphitheatre nearly 140,000 square feet of space will be chock full of exhibits.

Among the aerosol exhibitors one of the major points of interest will be the booth of Mojonnier Associates Division, Kartridg-Pak Machine Co., Franklin Park, Ill., which will operate two complete aerosol lines. During show hours intermittent motion straight line and new high-speed rotary equipment will actually fill aerosol containers.

Another gathering place for members of the aerosol industry will be the General Chemical Division's aerosol information booth. Now an annual fixture at these shows, the General Chemical booth enables the aerosol packager, or the potential one, to have a source of technical and other information at the show.

The formal program for the Conference, which is scheduled for the Palmer House, April 13-15, includes the following four papers of interest to the aerosol industry:

New Uses for Aluminum, by F. R. Newcomb, vice-president, American Can Co.

Horizons for Aerosols, by R. J. Hennessey, head of packaging development, Lederle Laboratories Division, American Cyanamid Co.

Toiletries & Cosmetics Packaging, by Warren B. Dubin, brand manager, Chesebrough-Pond's Inc.

Packaging Drugs Today, by John Deal, advertising manager The Upjohn Co.

Among the exhibitors with specific products or services for the aerosol industry are:

ALUMINUM CO. OF AMERICA, Pittsburgh (Booth 621). Personnel: Phillip C. Althen, J. S. Hamilton, R. R. Hill, W. Turbeville, Dr. T. M. Hill, R. W. Dispennett, H. J. Endean, J. E. Hileman, D. H. Thompson, W. C. Williams, J. L. Gleason, R. D. Murphy, N. E. Coe, J. K. Runnette.

AMERICAN CAN CO., New York, (Booths 129, 132, 232, 322).

BERNARDIN BOTTLE CAP CO., Evansville, Ind., (Booth 468). Personnel: L. L. Otterson, T. G. Alvey, Tom May.

J. L. CLARK MANUFACTURING CO., Rockford, Ill., (Booth 982-84). Personnel: W. H. Jecreys, A. E. Bennett, W. O. Nelson, J. E. Newkirk, P. J. Rich, F. D. White.

CONTINENTAL CAN CO., INC., New York, (Booths 676, 684, 690, 694, 775, 783, 789, 795).

CROWN CORK AND SEAL CO., Baltimore 24, Md., (Booth 871).

THE DOW CHEMICAL CO., Midland, Mich., (Booth 667-71).

E. I. DU PONT DE NEMOURS & CO., Grasselli Chemical Dept., Wilmington, Del., (Booth 1077-79). Personnel: T. J. Armstrong, W. Placzankis, J. E. Eley, B. C. Nylen, E. O. Sealine.

E. I. DU PONT DE NEMOURS & CO., INC., Polychemicals Dept., Wilmington, Del., (Booth 726).

EMHART MANUFACTURING CO., Standard-Knapp Division, (Booth 821).

THE WALTER FRANK ORGANIZATION, Hillside, Ill., (Booth 471). Personnel: Walter R. Frank, Mrs. Walter R. Frank, J. N. Mitchell, C. M. Luminais, J. R. Reidy, Roscoe Imhoff, H. R. Biersach.

GENERAL CHEMICAL DIVISION, ALLIED CHEMICAL CORP., New York, (Booth 227).

ADOLPH GOTTSCHO, INC., Hillside 5, N. J., (Booth 550). Will demonstrate packaged products imprinted on the production line without operator attention.

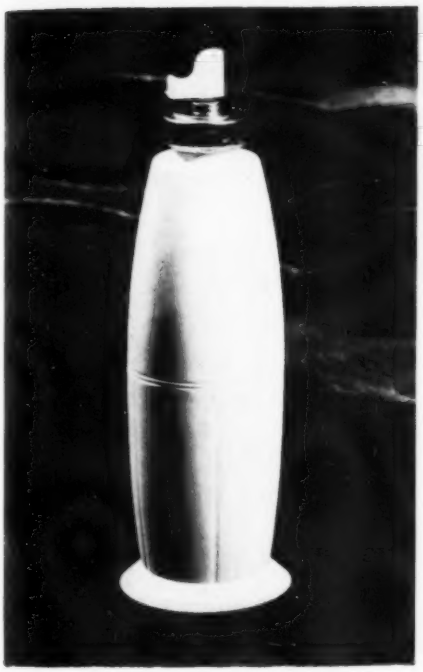
HOPE MACHINE CO., Philadelphia 14,, Pa., (Booth 1021). Will exhibit two filling machines and equipment. Personnel: Lewis H. Kinsley, R. J. Keller, A. R. Johnsen, R. Geiger, K. Klatte, C. Lessig, A. W. Whitney, L. Rogers, H. L. Duhart.

LABLETTE CO., Chicago, (Booth 326). Personnel: John G. Wesley, Sterling J. Groudel, Watts King, Morton Richards, Arthur Jernberg, Martin Tiemann, W. S. Bryan, William S. Hett, Arthur Meckenberg, Thomas Hoshall, Oscar Calahan, Lloyd Hollander, Arthur S. Holmes, Thomas Lewis, T. C. Fenton, Frank Allen.

MARKEM MACHINE CO., Keene, N. H., (Booth 972). Personnel: Robert Mensel, John Kelen, Arthur McNaughton, Harold Lampman, Edward Kreft, Joseph Lyon.

MOJONNIER ASSOCIATES, INC., Franklin Park, Ill., (Booth 689-95). Will install two complete aerosol lines in their booth. Personnel: George W. Heath, A. B. Mojonnier, T. J. Casey, T. J. Rink.

(*Continued on Page 79*)



One of several newly designed nylon aerosol containers being fabricated by the Apcon Co., Independence, Mo., is this new pastel-colored unit which comes in one and three-ounce sizes. It is also available in translucent nylon.

Sprayon Products, Inc., Cleveland, has introduced a self-container spray gun powered by a replaceable can of propellant. The unit, called the **Jet-Pak,** will spray all types of paints and lacquers, lubricants, protective coatings, and special solutions. It costs $4.95.

Fresh'n Clean, the first detergent to be packaged in aerosol form, was introduced last month in a coated Wheaton bottle with a Precision metered nitrogen valve. It is being filled by G. Barr & Co., Chicago custom filler and will be marketed initially through corset departments at $1.29. The FormFit Co., Chicago, is the marketer.

Borden's and Super Whip Sales Co. have introduced new aerosol dessert toppings in these Continental Can containers. Both are in 16-ounce containers rather than 12-ounce sizes, following a recent trend by the food industry toward the larger, more economical size.

NEW PRODUCTS AND PACKAGES

Pre-Marketing Check List for Pressurized Foods

A CSMA Committee Report

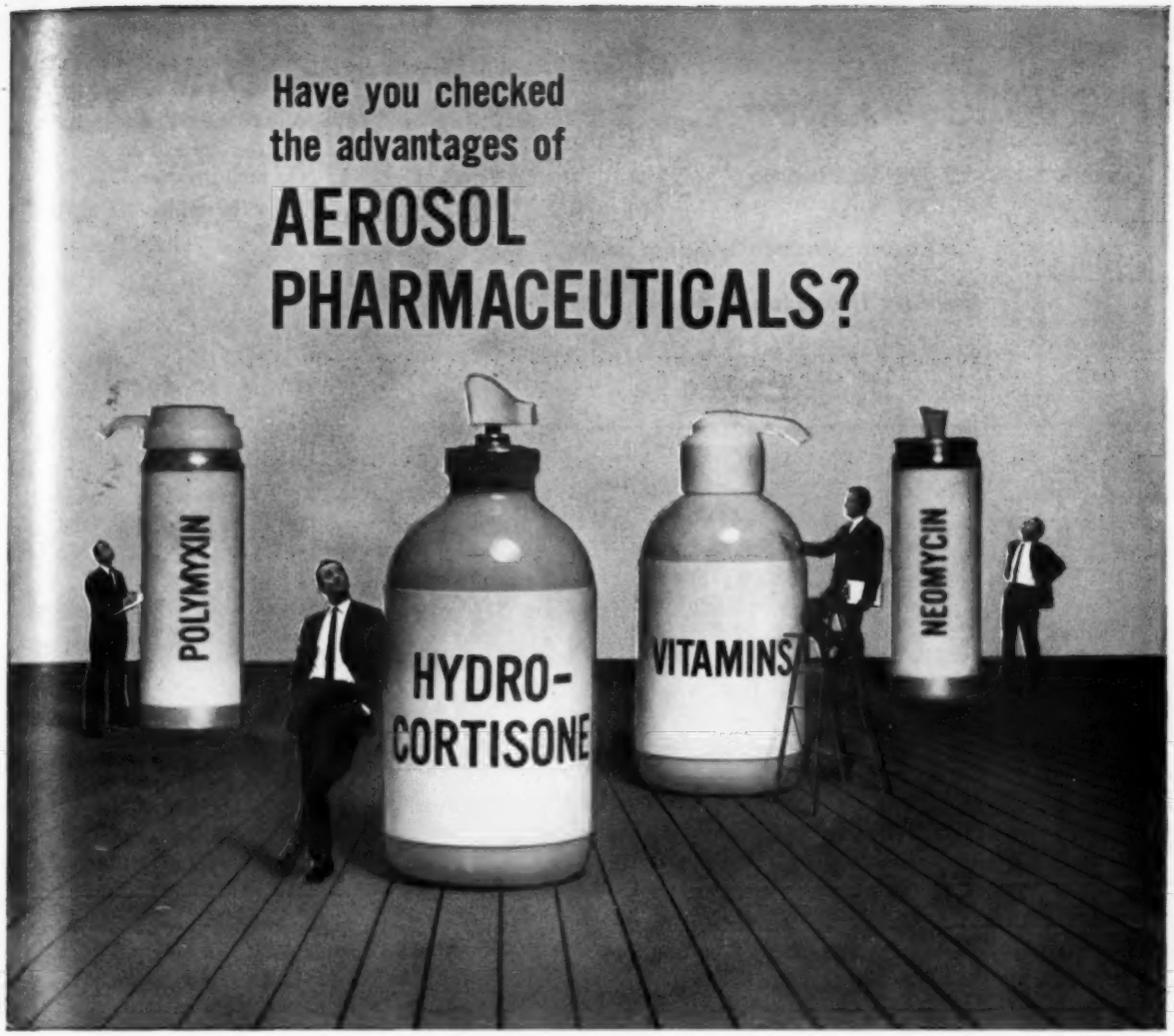
THE following "Pre-Marketing Checklist for Pressurized Foods", compiled by the Food Aerosol Liaison Committee of the Chemical Specialties Manufacturers Association, was approved by the association's Aerosol Scientific Committee on Dec. 8. It should prove to be of tremendous value to the aerosol food product marketer, to the custom filler, and to the technical departments of the suppliers of components and raw materials.

I. FORMULATION
- A. Product Characteristic
  1. Viscosity
  2. Particle size and resultant limitations
  3. Specific gravity
  4. Product pH
  5. Product composition
     a. Moisture
     b. Sugar content
     c. Salt content
  6. Color requirements
  7. Flavor requirements
- B. Effect of Temperature on Non-Volatile product
  1. Flow characteristics of product at the following temperatures:
     a. 40°F.
     b. 70°F.
     c. 130°F.
     d. 212°F.
  2. Effect of Temperature on Product Stability
     a. 70°F.
     b. 100°F.
     c. 130°F.
     d. 180°F.
  3. Effect of Temperature on Product Quality—Carmelization, etc.
- C. Compatibility of Product with Compressed Propellant
  1. Critical solubility range
  2. Degree of agitation required in terms of length of shaking cycle
  3. Effect of compressed propellants on product characteristics and quality
  4. Equilibrium pressure characteristics related to:
     a. Product Fill versus Headspace
     b. Temperature (40°F.-200°F.)
  5. Effectiveness of Product for the purpose intended, as determined by commercial techniques
  6. Determination of weight loss in grams of gas, or in pounds per square inch gauge
- D. Compatibility of Product with Liquified Gas Propellant*
  1. Critical solubility range
  2. Emulsifiability characteristics
  3. Weight ratio of propellant required for desired form of dispensing
  4. Pressure characteristics at the following temperatures:
     a. 40°F.
     b. 70°F.
     c. 130°F.
     d. 200°F.
  5. I.C.C. Regulations
  6. Effectiveness of Product for the purpose intended as determined by commercial techniques
- E. Standards of Identity for the Product

II. VALVE REQUIREMENTS
- A. Valve
  1. Performance of valve with formulated product
     a. Dispensing characteristics as related to valve structures and type
        aa. Spray
        bb. Foam
        cc. Ribbon
        dd. Stream (non-aerated)
     b. Body orifice sizes as related to the following factors:
        aa. Delivery rate
        bb. Particle size of product
        cc. Type of dispensing characteristics desired
        dd. Dropping rate
     c. Valve action
     d. Product retention
     e. Degree overrun (where applicable)
     f. Dip tube length and ability to anchor in container
     g. Means to prevent cavitation (where applicable)
     h. Marking of valve cup by manufacturer to insure proper alignment of actuator with position of dip tube to insure adequate removal of product
     i. Effect of crystallization of sugars on valve performance
     j. Effect of temperature upon valve components and gasketing material
- B. Actuator
  1. Particle size limitations
  2. Orifice size as related to particle size and type of dispension characteristics desired
  3. Configuration and grouping of mechanical spinners or other means to insure breakup of spray-type product
  4. Ability of actuator to perform required function
     a. Achievement of desired spray pattern and velocity in terms of:
        aa. Particle size
        bb. Spray pattern width at predetermined distances
        cc. Coverage of area to which product applied
     b. Achievement of desired application of streams (non-aerated), ribbon and foam type valves to perform required function in terms of:
        aa. Uninterrupted delivery
        bb. Non-clogging
        cc. Coverage of area to which product applied
        dd. Low percent product retention
        ee. Effect of possible crystallization of sugars
        ff. Ease of application

(*Continued on Page* 82)

* Section D added in assumption that liquified gas propellants will receive clearance for food use, either individually or in combination with other gases.



● The unique advantages of pressure packaging lend themselves to a number of pharmaceutical products and applications. For some time now Pfizer has been working in close cooperation with the pressure packaging industry to develop formulations where these advantages will be most profitable for pharmaceutical manufacturers.

For example, the stability of liquid multivitamins is greatly extended by pressure packaging because the preparations are overlayed by an inert gas, such as nitrogen, for the life of the container. Also, they are protected from the deleterious effects of light.

Another inherent advantage of pressure packaging is the complete freedom from atmospheric contamination afforded the contents of the package. Topical preparations utilizing Pfizer Hydrocortisone and the antibiotics—neomycin and polymyxin—as well as multivitamin preparations are particularly enhanced by this feature.

The Pfizer non-toxic plasticizers—Citroflex® A-2 and A-4 have proven highly effective for polyvinyl compounds used in pressure packed hair sprays and spray bandages.

Because of the firm conviction that pressure packaging will play an important role in the pharmaceutical industry, Pfizer is continuing to direct considerable effort towards the development of antibiotic, steroid and vitamin aerosol formulations. For a report concerning the role pressure packaging is playing, and will play, in the pharmaceutical industry write to Pfizer requesting reprints of the article, "Pressure-Packed Pharmaceuticals."

Among the many other advantages of pressure packed pharmaceuticals are:

- **Application is fast, convenient, uniform.**
- **A high concentration of a drug over a limited area may be obtained.**
- **Direct contact with the injured area is eliminated, often reducing pain.**
- **No waste through intermediate applicator.**
- **Dosage may be controlled accurately with metered valves.**

Science for the World's Well-Being

Pfizer

Manufacturing Chemists for Over a Century

CHAS. PFIZER & CO., INC. Chemical Sales Division, 630 Flushing Ave., Brooklyn 6, N. Y. Branch Offices: Clifton, N. J.; Chicago, Ill.; San Francisco, Calif., Vernon, Calif.; Atlanta, Ga.; Dallas, Tex.

The Food Additives Amendment

Packaging Institute Symposium Reveals Importance of New Law to Pressurized Packaging Industry

THE aerosol marketer, the aerosol component supplier, and research personnel in all phases of the industry will have to pay increasingly close attention to the 1958 Food Additives Amendment (to the U. S. Food and Drug Act) as they become more and more involved with food packaging. This fact was disclosed as government and packaging industry leaders convened in New York's Statler-Hilton Hotel in the first of three "Regional Conferences on Safety of Packaging Materials." The conferences are sponsored by the Packaging Institute, New York.

Three speakers from the Food and Drug Administration pointed out that, in packaging a pressurized food product, the key determinant of whether or not the packaging component or food additive comes under the new Federal amendment hinges on a somewhat vague-sounding phrase called "migration to product." Where migration or transferral of any amount or part of an ingredient or packaging component (valve, propellant, or container) into the actual food product can occur, it will be necessary to file a petition with the FDA to clear that component for use in the marketed product.

These interpretations of the amendment were given by three top FDA authorities: Arthur A. Checci, assistant to the deputy commissioner; Dr. Arnold J. Lehman, chief of the Division of Pharmacology; and Lessel L. Ramsey, member of the Division of Food. Two other speakers, Dr. John H. Foulger, medical advisor for toxicology and forensic medicine for DuPont; and Charles W. Kaufman, director of research and development for the National Dairy Products Corp., (and current president of the Packaging Institute) generally concurred with these conclusions, and pointed out that the packaging industry will have added responsibilities in dealing with the provisions of the amendment.

In effect what this amendment will mean to the aerosol industry is that all major components, including valve and dip tube materials, propellants, and can linings (and in certain instances, the can materials themselves) will have to be tested extensively to see that traces from them do not migrate into the packaged food product — at accelerated shelf temperatures and under other extreme conditions apt to be encountered in normal use.

Mr. Checci pointed out that where migration is possible, the petition to the FDA must include:

1. All pertinent chemical information, such as exact chemical identity, etc. Where this is not known, the petition should include specific information on the process by which it is produced and the raw materials used.
2. Extent to which it might be expected to migrate to the food product under normal conditions.
3. Data to show that it will produce a desired physical or technical effect. (The FDA has a ruling that where the material or component does *not* produce such an effect, and yet there is migration, it may *not* be used to package that food product.)
4. A practical method for determining the amount of additive in the final product.
5. All scientific studies of the material or component, to include both favorable and unfavorable references.

Within 15 days after receipt of such a petition, the FDA determines whether or not it contains omissions; that is, whether or not it may be forwarded for further consideration. Then, within 90 days after it has been accepted for consideration by the FDA, a decision must be rendered and an order published in the *Federal Register* setting forth the conditions under which the additive (or packaging material or component) might be—or may not be—used. Mr. Checci acknowledged that once such an order is published, any person or company may use the material, providing it is used exactly as proposed in the original petition.

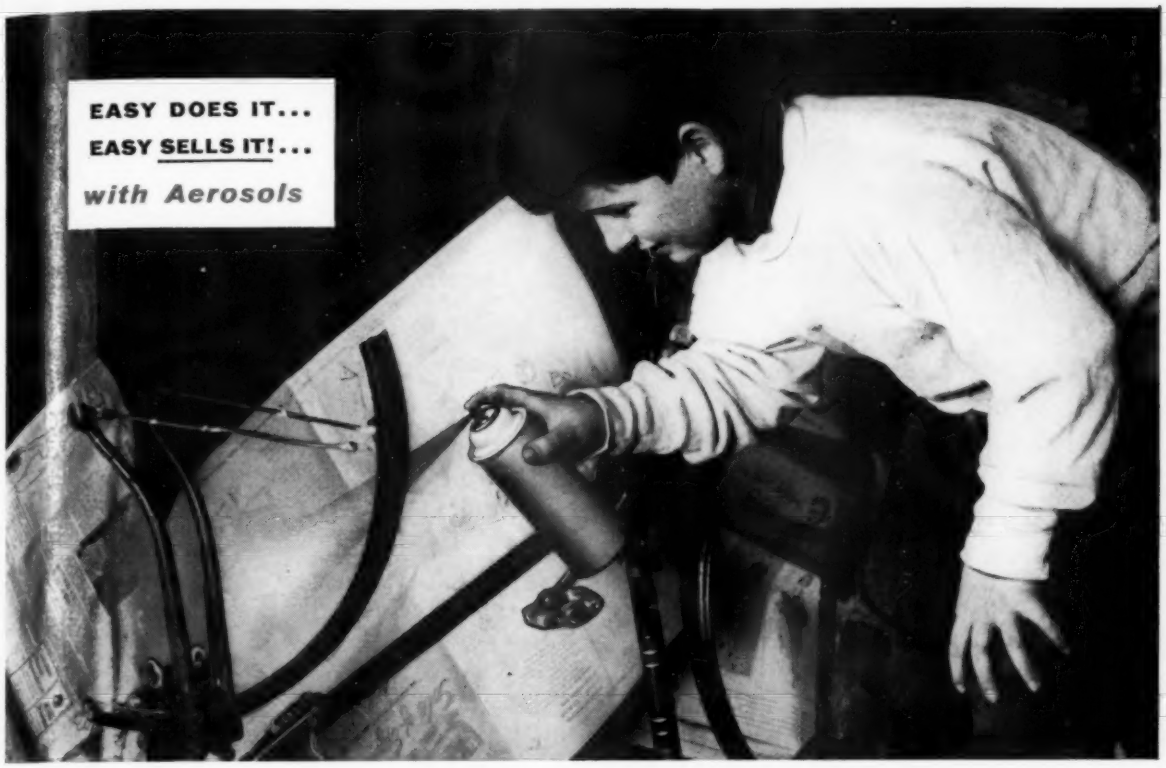
"The FDA does not contemplate publishing the full formula of the process or even of exactly how the material may be used. The notice in the Federal Register will be all the information released to the public and to competitive marketers on that particular material or additive."

In the event the petition is turned down, Mr. Checci advised, the petitioner has 30 days to file an objection with the Commissioner; and, if his petition is again denied, he can still appeal the decision through the U. S. Circuit Court of Appeals.

Mr. Ramsey suggested that plastics, by their very nature, will present the principal problem among the aerosol package components. "Ideally, the best procedure would be to package the food in accordance with normal packaging practices and then analyze the ingredients after bringing the container to the highest possible temperature and the most stringent conditions it might encounter."

He suggested extractability tests, using simple solvents to simulate the food and beverages to be packaged.

(*Continued on Page* 79)



Magic Touch of Aerosol Packaging opens bigger markets for touch-up paints

"It's faster," say consumers. "It's easier. It's neater." These advantages of aerosol paints sold over 30.5 million cans in 1957—more than half again as many as in 1956!—and the market is still growing fast!

The paint field is now seeing the same kind of revolutionary sales impact that aerosol packaging has had on hair sprays and insecticides, shave creams and room deodorants. And if *you're* thinking of marketing aerosol paints or any other product in aerosol form, we'd like to help.

How General Chemical can serve you

As a leading producer of aerosol propellants, General Chemical provides a great many helpful services to present and prospective aerosol marketers. We will, for example, be glad to work with you to develop a formulation with the right pressures and compatibilities for your product and container.

We will direct you to many capable contract fillers in every part of the country who will put up your product in aerosol form for test marketing and handle full commercial production as well. In this way, you can enter the aerosol marketplace without investing a cent in plant, special equipment or production personnel!

General Chemical services include:

New Product Ideas

Technical Literature and Market Data

Technical Assistance with Product Development and Formulation

For further information—or if you would like to arrange for a special presentation—write today to "Genetron" Dept., General Chemical Division, Allied Chemical Corporation.

genetron®
aerosol propellants
Putting the "push" in America's finest aerosols

Allied Chemical

GENERAL CHEMICAL DIVISION
40 Rector Street, New York 6, N. Y.

Aerosols in Great Britain

By A. Herzka, B.Sc., A.R.I.C.
Research Department,
The Metal Box Co., Ltd.,
Alperton, Midd., England

THE year 1958 was undoubtedly the best yet for the British aerosol industry, since it produced an output of approximately 16,000,000 units. Annual returns, such as those compiled by the C.S.M.A., do not exist over here, and the figure quoted is therefore, a personal opinion. The past year has seen an increase in the variety of products and the first nitrogen propelled pack, a toothpaste, was marketed in the autumn.

1959 opened dramatically, with the major marketers of insecticides and air fresheners slashing their prices very considerably. In a matter of days almost everyone followed suit. The new prices for six-ounce capacity dispensers of insecticides and air fresheners are usually 4/6 (previously 5/6) and the 12-ounce capacity dispensers are 8/6 or 9/- as compared with 10/- or 10/6 previously.*

As is only to be expected, the last few months have witnessed the marketing of a number of new products amongst which are the following:

* In compiling the U. S. equivalent of English money, one shilling equals 14 cents. Therefore 4/6 equals 4 x 14 or 56 cents plus 6 pence or about 62 cents.

CORTRIL brand of hydrocortisone, is being offered by Pfizer, Ltd., Folkestone, Kent. The pack consists of a plastic coated glass container, fitted with a Risdon micro-mist valve, which contains 100 mg hydrocortisone free plus alcohol for spray application.

COLBAX Air Spray, retailing at 7/6, is being distributed by Fassett and Johnson, Ltd., of London. Packed in a six-ounce tinplate dispenser fitted with a Precision valve, this product is claimed to give effective relief from congestion associated with colds, influenza and catarrh. In addition to ephedrine, "Colbax" contains a germicide to prevent the spread of infection.

ALGISPRAY is being marketed by Castle Laboratories, Ltd., Hinckley, Leics. for use in the treatment of rheumatism and associated complaints. "Algispray" contains 5% each of hydroxyethyl salicylate and diethylamine salicylate, and 1% of methyl nicotinate. One of its advantages is that it may be self-administered by infirm or semi-immobilized sufferers.

Cupal, Ltd., Blackburn, Lancs, is marketing a new range of garden insecticides, including "Secto-Kil" as a five-ounce "House and Garden" Spray. This product contains malathion.

Colgate-Palmolive, Ltd., recently introduced its popular priced "Instant Shave," retailing at 4/11 for a six-ounce dispenser. The product carries a guarantee of money back "if faster, cleaner shaves are not enjoyed."

D. & W. Gibbs, Ltd. of London, recently brought out "Gibbs S. R." toothpaste in a nitrogen propelled pressure pack. An extruded aluminum container fitted with a Precision valve (both components supplied by The Metal Box Co.) is used and the retail price is 6/9.

Another interesting product is "PRESSMARK" color spray for animals, which is produced and marketed by Walter Gregory & Co., Ltd. of Wellington, Somerset. "Pressmark" is available in red, green, black or blue and it indelibly marks hair, wool or skin. The marks will not wash off nor can they be scoured out of the wool, and they will last six to twelve months. For this product, tinplate containers fitted with Precision valves, are used.

Amongst the anti-frost sprays marketed for the first time is "DICE-IT," by Harker Stagg, Ltd., of London, which retails at 7/6. A six-ounce tinplate container fitted with a Precision break-up spray valve is used.

Two new marketing organizations have recently commenced to offer branded aerosol products.

Mondart, Ltd., of London, W.1. are offering the "MAX" range which comprises at the moment, a fly killer, a mothproofer and an air freshener.

(*Continued on Page* 71)

"Nobecutane," a transparent dressing, and "Gibbs SR" aerosol toothpaste are two of the more noteworthy pressurized packaging developments in Great Britain in recent months.

are you considering a food aerosol?

Let D&O Flavor it!

A technical assistant in the D&O Laboratory demonstrates the filling of a food aerosol with nitrous oxide.

THE POTENTIAL in the field of food aerosols has long been recognized ... and with it the need for compatible flavors. To meet this newest of food industry challenges, D&O has established a special section of the Aerosol Testing Lab for experimentation with pressure filling food products. Nitrogen, nitrous oxide and carbon dioxide/nitrous oxide filling equipment is available for the convenience of food processors interested in entering this expanding area of their industry. These facilities, added to D&O's traditional knowledge and experience in the flavor field, are yours on request. Consult D&O.

D&O ESTABLISHED 1798

Essentially for You

Our 160th Year of Service

DODGE & OLCOTT, INC.

180 Varick St., New York 14, N. Y.

Sales Offices in Principal Cities

Essential Oils *Aromatic Chemicals*

Perfume Bases *Flavor Bases*

Dry Soluble Seasonings

COSMETICS
PHARMACEUTICALS
FOR BEAUTY...
FOR HEALTH!
PRECISION
VALVE
AEROSOL
DISPENSING
Cosmetics are the leading sales producers right now and pharmaceuticals will make the next big market... Why?... The big buyer of merchandise will buy the items that are easy to operate, are not messy and require no guess work.
Aerosols are the answer and Precision's great laboratory has developed a stream, metered stream, drop or metered drop for such cosmetic products as hand creams, lotions, hair creams, facial creams, depilatories, and for the new market of pharmaceuticals in aerosols, such as vitamins, antibiotics, dietetic sweeteners, cough medicines, tonics.
PRECISION
SPRAY
FOAM
STREAM
DROP
PRECISION
VALVE
CORPORATION

Aluminum Containers for Food Products*

By L. P. Gotsch, E. F. Eike, and K. W. Brighton
Research and Technical Department
American Can Co.
Barrington, Ill.

ALUMINUM cans *have* definitely arrived, and there is general agreement that they will find a variety of applications where the properties of the metal may be used for advantage. The technical interest in aluminum by our company over the past 30 years, and the quickened interest in the last several years, has stemmed from the economic possibility that aluminum would sometime compete price-wise with tin plate for the rigid container market. The reasons why this possibility is attractive to the canmaker are several. The most important is that it would provide us with a second major can making metal.

To understand why we are willing to commit increasingly greater research funds on the gamble that the price of aluminum will be reduced enough to make aluminum cans competitive with tin plate cans, it is necessary to examine some of the recent developments in the economics of aluminum.

Aluminum is one of the great success stories of our times. Production of primary aluminum rose steadily until World War II and then skyrocketed.

Since 1947, when aluminum and steel were price decontrolled, the price of aluminum pig has risen at about the same rate as the price of tin plate. However, faced with such a glut of the metal, aluminum producers have recently taken a long look at the can market which currently utilizes about 5 million tons of steel. By projecting a change in their method of operating, from that of a job shop to sustained production runs of plate of one specification, the producers of aluminum have been able to establish a can stock commodity price tied to large volume usage which offers substantial price reduction. For example, the price of .010″ thick 5052 alloy, which is one of the alloys suitable for can making, has been reduced from 56.8 cents a pound to 32.0 cents. One of the aluminum producers has also been able to make a special arrangement by which 60 million motor oil cans were supplied at the same price as tin plate cans. And other economic breakthroughs have been promised.

The pricing relationship between slugs and sheets will determine which type of aluminum can making process will be used in preference to another. It is therefore necessary to review the various ways by which aluminum cans may be manufactured, and to consider the performance properties of such cans.

Types of Aluminum Containers

It is not very likely that the sideseams of aluminum cans will be soldered. A great deal of research has been done, but the technical difficulties to be overcome are so great that other container constructions appear more attractive for exploitation. The probability is good that future technology will result in cemented sideseam containers suitable for vacuum holding and pressure sterilization. It is likewise probable that sideseam welding techniques, either electrical or ultrasonic, will be engineered to practicality. For the moment, however, most attention is being focused on four other can making methods, three of which have never been used previously in this country for the production of cans for the large volume processed food items.

Recent publicity in connection with aluminum containers has employed a number of such new or unfamiliar terms as impact extrusion, drawing and ironing. Packagers will be interested in thumbnail sketches of what these processes are and what the dimensional characteristics of the containers made thereby will be.

Drawn Cans

The only aluminum containers in commercial use in the United States for sterilized food products are shallow drawn cans for sardines. This process has also been the most economical for making tin plate containers of the same shape. It is generally applicable to containers which are no more than half as tall as they are in diameter. If one requires a taller can, this shallow cup must be drawn a

*Excerpts from an address delivered at the Research Luncheon of the 52nd annual convention of the National Canners Association, Chicago, Ill., on Feb. 21.

valuable information for profit-minded packagers

ALSO AVAILABLE . . .

"FACTS ON GASES USED FOR FOOD PRODUCTS" covers in detail the aspects of processing, preserving and packaging food products and how the use of the proper compressed gas improves product appearance and shelf life.

Just out — Air Reduction's helpful new brochure, "NEW OPPORTUNITIES FOR MORE PROFITABLE PACKAGING," explains how AIR REDUCTION representatives — both in the field and in the laboratory — work to solve packaging and processing problems involving the use of compressed gases. It shows how both present and prospective users of "push-button" containers will benefit from Air Reduction's extensive experience in this exciting field. The brochure also covers other applications for compressed gases such as blanketing, purging, quick freezing, chilling, hydrogenation and carbonation.

If you package or process a product — send today for your free copy!

AIRCO

AIR REDUCTION COMPANY, INC.

Customer Service Packaging Laboratory

1400 East Washington Avenue
Madison 10, Wisconsin

AIR REDUCTION COMPANY, INCORPORATED
CUSTOMER SERVICE PACKAGING LABORATORY
1400 East Washington Avenue, Madison 10, Wisconsin

Please send, without obligation, the material requested below:

☐ "NEW OPPORTUNITIES FOR MORE PROFITABLE PACKAGING"
☐ "FACTS ON GASES USED FOR FOOD PRODUCTS"

(Please print or type)

Name.....
Title.....
Company.....
Address.....
City.....Zone.....State.....

second time (redrawn). Because this second operation obtains the additional height by taking metal away from the bottom, a decrease in diameter is necessary and this diameter change requires that two separate dies be used. This multiple operation requirement is an important reason why drawing is not considered the most practical method for making cans of large height diameter ratios. However, one economic advantage of the drawing process over the others to be discussed is that stock which has been pre-enameled in the flat may be used as is done with tin plate containers today. Containers made by this process have both bottom and side walls of equal gauge essentially the same as the initial gauge of the plate used.

Reverse Impact Extrusion

The process of reverse impact extrusion is probably the most familiar since it is the process by which collapsible tubes for toothpaste have been made for many decades from tin and lead and, in more recent years, from aluminum. A slug of metal is contained in a shallow die cavity where, under pressure from the descending punch, it is forced up along the punch wall. The annular clearance between the die and punch determines the thickness of the side wall of the finished shell. A characteristic of these containers, which have no sideseam or bottom double-seam, is that the bottom is heavier than the side wall, and the dimensions reached by this method are typical of those one might expect to use for a container of the 303 x 406 or similar size and shape as made today.

Future engineering probably will be successful in reducing the excess of metal left in the bottom. The height to which these seamless shells may be formed by this process is limited only by the length of stroke available for the punch. There is a practical limitation, however, due primarily to the fact that long stroke presses are slower than desirable for a unit which produces only one can per operation. Current engineering activities are being aimed at improving production speeds by increasing the number of strokes per minute and by using multiple dies. Reverse impact extruded cans have been used rather extensively in Europe for beer, pressurized products, and even premium containers for pharmaceuticals, powdered coffee, etc. The small diameter aluminum cans being used for pressure-propelled products in this country are reverse impact extruded, as are the beer cans being made in Hawaii. Ultimately larger diameters will be produced and some pressurized food products of specific interest to food packagers may also be packed in these cans.

EDITOR'S NOTE

Although this article was not aimed specifically at the aerosol industry, the information contained about fabrication methods, product retention, and product-container compatibility should prove invaluable to furture aerosol planning for this type of container.

Forward Extrusion

The limitation of height imposed by the length of stroke can be circumvented by impact extruding forward rather than in reverse. In this method the initial slug is in the shape of a heavy ring, and as the punch descends, its nose enters the die and forms the annular orifice through which a long tube of aluminum is forced out through the bottomless die. For can making purposes this tube could be long enough to cut into several can bodies. This would result in a can body which has no sideseam, to which two conventional type ends would be seamed to form a three-piece container.

Drawing and Ironing

The last method which has been much publicized and discussed as a potential aluminum can making process is drawing and ironing. This process begins by making a simple shallow drawn shell, but the die is bottomless and the punch continues downward to push this cup through a ring slightly smaller in diameter than the cupping die cavity above. This thins the side wall and forces the metal upward, thereby increasing the height of the can. Additional ironing operations may be added to achieve whatever body wall thickness and height is desired. Again limitations are imposed by the practical length of stroke available. The shell with no sideseam or bottom seam is similar in cross section to those made by reverse extrusion in that the bottom is heavier than the side wall. The bottom has the initial gauge of the sheet metal used. The thickness of the side wall is determined by the difference in diameters of the final ironing ring and the initial cupping die.

Neither extruded nor drawn and ironed containers can be made from preenameled or lithographed stock. The cans must be heavily oiled during the forming operations and will need to be thoroughly degreased prior to inside spray enameling and before any outside lithography can be applied. This means, of course, a change not only in the basic can making method, but in all of the supplementary operations required to finish the container.

One of the principal questions asked by food packagers is whether aluminum cans will be strong enough to withstand all of the handling and mechanical stresses imposed upon containers during packaging and distribution. In an earlier paper, we have shown that to provide the same paneling resistance and buckling resistance as tin plate containers, the gauge of aluminum containers must be increased by 35%, even when the high strength alloys are used.

The tin plate container has been engineered to meet the requirements for modern commercial high speed canning operations with the minimum practical gauge of plate. Many economies in plant handling have been achieved by sacrificing perfect container condition. Small but tolerable amounts of denting are now found from operations such as crate filling, crate dumping, chute drops, star wheels, unscrambling devices, bar flight elevators, etc. It can be assumed that any change to weaker

(*Continued on Page* 87)

Silicones in Aerosol Products*

By John A. Fisher
Dow Corning Silicones Ltd.
Toronto, Canada

(Bridgeport Brass Photo)
One of the more promising household uses of silicone is expected to be in fabric and shoe waterproofing sprays.

TODAY silicones are widely used in aerosol products for automobiles, for the home, for industry, and in many cosmetic and toilet goods applications. The future uses of silicones in the aerosol industry are rather difficult to predict, and there are two very important factors which are unknown. The first factor is the ever-broadening use of aerosols. New propellants, new valve designs, and new containers will mean that in a few years from now many products which are not at present packaged in aerosols will move into that field. There are at present, many, many products on the market utilizing silicones which could therefore, in a few years, become aerosol packaged; and this will greatly change our position in the industry.

The second factor, and possibly the more important one, is the variety of silicone materials which we produce. Every year our laboratories prepare approximately twenty-two hundred new experimental materials. On an average about twenty-two of these become new production materials every year. This means that in about two weeks from now there will be a new material which at present we know nothing about, and two weeks after that another. This new product development is what we feel to be the most important intangible concerning our future position in this industry. It is entirely possible that some time in the next year or two there will be developed quite a number of new silicone materials with characteristics unlike any of the silicones which we now have available. Many of these would have very broad application in the aerosol industry.

A convenient way to discuss our present position would be to break down the various uses into groupings:

Automotive Market

The automotive market at present is using quite a number of silicone-containing aerosol materials.

Automobile Polish:

At present a considerable number of polish manufacturers in Canada are offering an aerosol spray or foam polish containing Dow Corning "200 Fluid." The function of the silicone in these products is to give faster rub-out, quick, easy polishing, and a durable polish film which is water repellent.

Ignition Spray:

The function of the silicone in ignition sprays is to provide a water repellent film on ignition leads, distributor caps, battery terminals, etcetera, which is durable and not affected by cold (ignition sprays without silicones tend to harden and crack in the cold weather), and does not melt under hot conditions (ignition sprays without silicones will melt or run in very hot weather, and on hot engine parts).

Rubber Lubricant and Protectant:

A high percentage of Dow Corning "200 Fluid" is used in these products to provide a durable lubricant for the rubber, which will protect the rubber against sticking when in contact with metal parts, and as the film is water repellent protect the rubber parts against freezing and sticking to metal parts in the winter time. This type of spray is applied to door rubbers, trunk gaskets, window felts and channels, and other rubber parts in the car.

* Presented at the first annual meeting of the Canadian Manufacturers of Chemical Specialties Association at Montreal, Que., on Nov. 14, 1958.

BASE 325

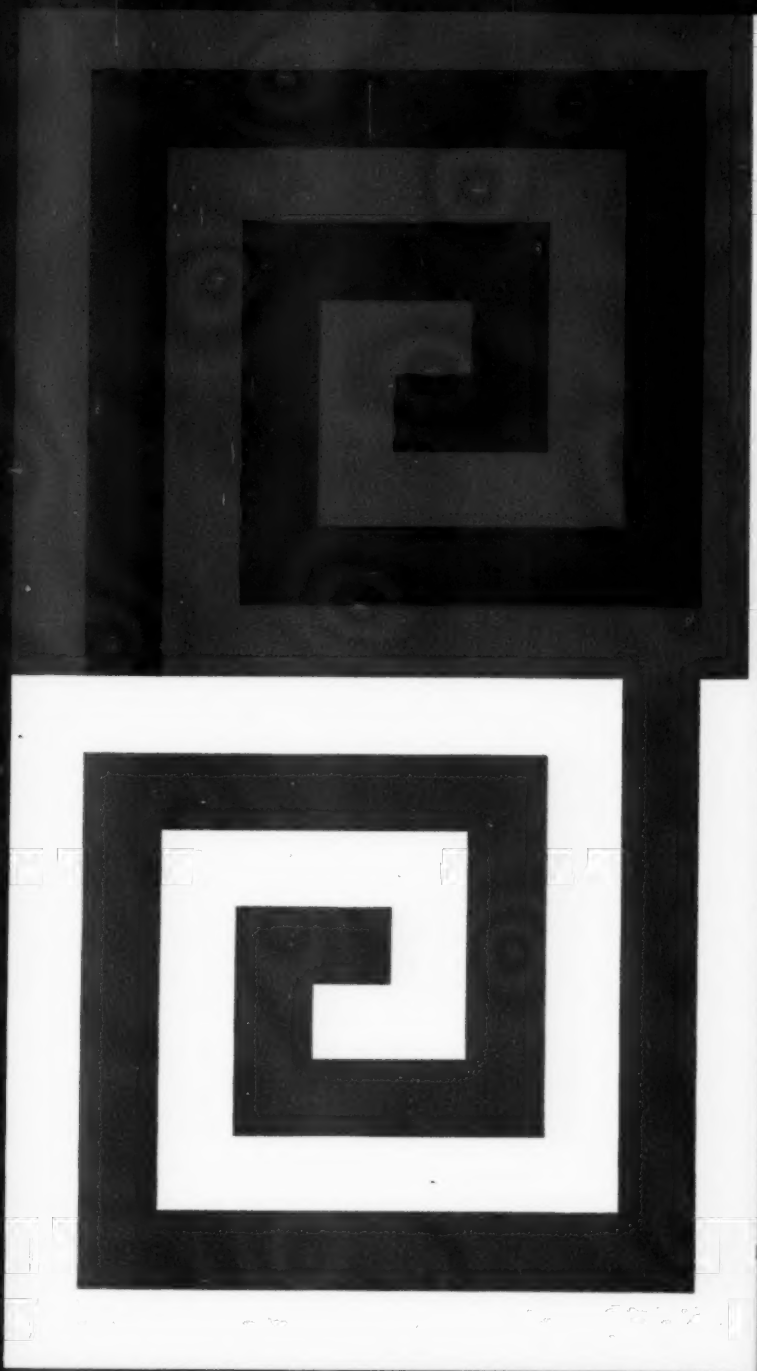
CIBA

MEETS THE "MUSTS"
FOR MODERN

HAIR SPRAYS

A RESIN BASE
THAT OFFERS THIS
COMBINATION
OF PROPERTIES...

- Non-hygroscopic
- Water soluble
- No objectionable odor
- Transparent film
- High luster
- No corrosive properties
- Compatibility with wide perfume range
- Excellent adhesion
- Excellent plasticity
- Hard film offers excellent curl retention
- Can be applied on moist hair as well as dry
- Can be "worked" after application
- Excellent thermal properties
- Strict quality control



FOR FURTHER INFORMATION ADDRESS:
CIBA COMPANY INC., FAIR LAWN, N. J.

CIBA

Chrome Protectant:

This is a use which has not been developed to any degree at this time. A rust-preventive silicone, Dow Corning "15A Fluid," could be used to spray on chrome parts, and the water repellent and heat and cold resistant characteristics will make possible a treatment which would be durable and colorless, and protect chrome from the deteriorating action of salt and water.

Muffler Paint:

This is another product which could be marketed. A high temperature silicone paint resin can be blended with aluminum pigment to produce an aluminum muffler paint which would withstand temperatures up to 1000° F., and thus provide a muffler paint which can be sprayed on the exhaust manifold, muffler, and tail pipe, and which would not burn off, allowing rust corrosion. Organic paints at the present time burn off mufflers in a few days.

Household Products

The household product market has many silicone-containing materials.

Window Cleaner:

At present there are marketed aerosol window cleaning sprays which utilize a small percentage of silicone emulsion, Dow Corning "36 Emulsion," to provide ease of rub-out, and thus make possible a product which can be quickly and easily applied. The durable character of the silicone makes the finished job last longer.

Furniture Polish:

Silicones in furniture polishes are in two types of formulations—foam and spray-type polishes. The same characteristics that make it desirable to put silicones in automobile polish, apply in furniture polish.

Fabric Water Repellent:

There has just been put on the market a new fabric water repellent, which when sprayed on cloth, upholstery, tents, etc., provides a durable water repellent treatment. This product does not use a small percentage of silicone additive, but is based almost solely on a silicone air drying water repellent material.

Shoe Water Repellent:

Another new product to appear is a water repellent treatment for shoes, snowboots, and other leather goods, based on a chemical very similar to the water repellent used in the fabric treating material.

Utensil Release:

Today, many manufacturers of the new automatic frypans and cooking utensils are applying a silicone resin, Dow Corning "671 Resin," to the utensil in the factory, to give a release coating, and to cut down the need to ever grease the pan. There is on the market an aerosol spray of the same resin for home application, to re-treat these utensils when necessary, and to treat any other utensils in the home.

Cooking Defoamer:

This is a possible product which could be marketed, based on silicone defoaming materials. An aerosol spray could be made for use in the home, to defoam cooking materials which at present cause trouble due to their foaming characteristics. Examples are boiling jams, jellies, fudge, milk, and in fact any cooking operation where foaming is a problem, and there are many.

Lawnmower and Snow Shovel Release:

Another possible use for silicones would utilize a silicone fluid. Sprayed on snow shovels or lawnmowers, it would give a slippery release surface which would reduce the tendency of snow to stick to the shovel, or grass to build up in power lawnmowers.

Cosmetic Market

Silicone materials are admirably suited to the cosmetic and toilet goods market. They offer unique properties —they are colorless, odorless, nontoxic, will not become rancid; and most important, when applied to the skin they do not seal the pores but allow the skin to breathe. At the same time they repell water and waterborne chemicals. There are two main fluid types which are used, Dow Corning "200 Fluid," which is widely used in lotions, creams, and hair conditioners, and Dow Corning "555 Fluid," which is very similar in performance to Dow Corning 200 Fluid, with the added advantage of being soluble in alcohol. This latter characteristic makes it very useful in alcohol-based systems such as suntan lotions, insect sprays, etcetera.

Hand Lotions:

A great number of hand lotions on the market contain silicones to provide protection against "dishpan hands." Many of the manufacturers of these products are either looking at or moving into the aerosol package field with sprays or foams.

Hair Conditioners:

There are a number of hair conditioners on the market which utilize silicone fluid to provide a spray which doesn't set into a hard film, and does give the hair deeper lustre and less tendency to tangle. Silicones give these conditioners better "combability."

Organic Hair Spray Additives:

Silicones are used quite widely in small percentages as an additive in conventional hair sprays to soften the organic resin and to impart lustre to the hair.

Suntan Lotion:

Silicones are widely used in suntan sprays to make the lotion water repellent, so that when the user has gone in swimming the suntan lotion will not be washed off. Dow Corning "555 Fluid," the alcohol-soluble silicone, is used in these formulations.

Insect Spray:

Insect sprays for hunters and campers could be made with silicones. The inclusion of Dow Corning "555 Fluid" here would be for the same reason as in the suntan lotion—namely, to make the insect repellent also water repellent and retain the active ingredient longer on the skin.

Silicone Wave-Set Hair Sprays:

This is a possible use in the near future, utilizing silicone resin (DC-5581 or DC-6981) rather than organic resin, in combination with silicone fluid (DC-555 Fluid) to provide an extremely durable hair treatment.

(*Continued on Page* 86)

PACKAGE YOUR PRODUCT TO PLEASE IN ALUMINUM AEROSOLS BY WIRZ

New

Convenient aerosols in handy new "personal" sizes assure added sales appeal for a wide variety of products . . . now *beautifully* at home in boudoir, travel bag or bathroom shelf.

Wirz improvements in aerosol design and manufacture meet your most exacting packaging requirements, too. Wirz aluminum aerosols are light in weight, completely rust-free . . . newly engineered to provide easier, simplified dispensing of cosmetics, pharmaceuticals and household specialties. Seamless, one piece construction eliminates any possibility of leakage . . . insures positive protection for your liquid or semi-liquid product formulations.

Wirz packaging specialists are prepared to produce aluminum aerosols promptly and economically . . . to your particular design and size specifications. Contact your Wirz representative or write for complete data on *new* aluminum aerosols by Wirz.

901

Another Development by America's Leading Producer of Collapsible Metal Tubes

A. H. WIRZ Inc.

2292 W. TOWNSEND STREET, CHESTER, PA.
ALSO RIGID CANS & IMPACT EXTRUSIONS—AMERICAN EXTRUSION DIVISION
NEW YORK • CHICAGO • LOS ANGELES • MEMPHIS • HAVANA

AEROSOLS in review

In this column important aerosol subjects appearing in other periodicals (both domestic and foreign) will be reviewed and summarized. It is felt that this service will enable the reader to keep abreast of most of the significant contemporary articles on the industry, even though they may appear in other periodicals. Since there is a chance that some pertinent articles may be overlooked, it will be helpful if readers will call our attention to any they judge important enough to review.—*The Editor.*

Sales Girl is Educated on How to Sell Aerosols

AN EXCELLENT educational article on aerosols, aimed squarely at the perfume and toilet goods sales girl, is featured in the March issue of *Beauty Fashion*. Part of the magazine's monthly "Store Meeting Program," the article answers a number of pertinent questions that might be asked of the sales girl:

What is an aerosol?

What are the special selling points to remember?

Are there any problems to watch out for?

How to compete with self-service distributors.

In a preface to the discussion part of the article, *Beauty Fashion* cautions: "There is no room for complacency in handling products which are aerosol packaged. For one thing, intelligent promotion of aerosols can introduce millions of potential new users to the benefits of cosmetic items which they have heretofore never used. And secondly, understanding salesmanship can convince the public that quality merchandise is well worth the extra price it costs, compared to cheaper, self-service packages."

Turning to specifics, the article points out that "Although many aerosols cost slightly more than the same types of product in conventional form, they contain greater quantities and last longer. New measured sprays, which automatically control the amount of product to be dispensed with each application, avoid waste and let the customer know exactly how many times (often surprisingly high in number) that she can use the aerosol product.

". . . Many aerosols come in bottles which look only partially filled, with obvious head space. Explain to the suspicious customer who thinks she's possibly being cheated that she is only paying for net contents, and that the air space is there for the specific purpose of allowing the propellant to exert the necessary pressure.

". . . Any customer who turns down a present-day aerosol because, ten years ago, she had an unfortunate experience, should be reassured that improved valves and actuators are practically foolproof. Upward spiraling sales alone attest to the fact that this bugaboo is now *passé*. However, outline the store's guaranty of satisfaction for these reluctant ones.

". . . Spring costumes give impetus to a desire for lighter scents, such as floral bouquets. Mood of the new season lends itself particularly to advertising, display and counter talk pointing out the desirability of spray-mist fragrances to give fresh over-all effect."

•

A NEW single-stage process of making stable transparent oils from coal is described in the February 7 issue of *Chemical Age*, British chemical trade magazine. The process was developed in the laboratories of the British Coal Utilization Research Association, and some of the gaseous by-products of the reaction are believed to contain low molecular weight chloro-fluorocarbons similar to those used as aerosol propellants.

A low grade Northumberland coal is used for the new process, which begins with the liquefied chlorine trifluoride, diluted with nitrogen, being passed through a heated bed of coal. Pieces of scrap nickel are used to break up the coal mass to prevent coalescence on heating.

A nickel reactor with a heated exit tube, together with nickel traps are used for the extraction of the highly fluorinated products, which have marked thermal stability and chemical inertness, non-flammability, high density, etc.

•

A NUMBER of valuable suggestions to the retailer on how to improve sales of colognes, shaving creams, hair colorings, and other aerosol product types are given in the "Merchandising Trends" section of the March 9 *American Druggist*. Principal hints come from Annette Green, Lentheric-Helene Curtis promotion director; Myron Gaffen, publicity director of Roux Laboratories; and Michael Jackson, of Mennen, all major aerosol marketers.

"The average woman," according to Miss Green, "really does not understand what she is doing when she buys fragrance items, which comprise a major part of the cosmetics department of the drug store. Therefore the woman is particularly open to suggestions from the druggist who seems

Dip tubes for aerosols

by Leo Gans

More than a billion aerosol containers have been manufactured and distributed in the last five years. During the same period at least another 100 million other dispensing packages have also been produced.

In addition to the propellants, there are three major components to this type of dispensing package: the container, the valve, and the dip tube. The dip tube is a multifunctional key to aerosol performance and serves these essential uses:

1. Conveys the liquid from the bottom of the container to the dispensing valve at the top.

2. Acts as a meter for the contents to be dispensed.

3. Prevents the propellant from escaping without dispensing the content of the package.

This tubing which has to meet very rigid mechanical and chemical requirements is manufactured by highly specialized plastic compounding and precision extrusion techniques

Material considerations

The choice of the plastic material or compound to be used for a particular dip tubing application is dependent on the specific property requirements with respect to: (1) chemical resistance; (2) environmental and thermal stress crack resistance; (3) appearance, color and transparency; (4) elasticity, elongation and stiffness; and (5) toxicity.

Most polyethylenes and nylons have the chemical resistance required. Yet early work showed clearly that an accelerated breakdown of the compound occurs if it is stressed, as in tubing stretched over a valve nipple. This breakdown is increased in the presence of both heat and various chemicals such as detergents, solvents and essential and other oils. This property which occurs primarily in polyethylene has only fairly recently been recognized and studied extensively. It is termed "thermal and environmental stress cracking."

Accordingly, special polyethylene compounds have been developed to reduce the environmental stress cracking of polyethylene.* In this connection, quantitative testing for rapidly evaluating tubing for stress crack resistance has been devised.

Certain specialized requirements dictate the use of plastics other than polyethylene. Aerosol fire extinguishers, finger nail lacquers and some paints require carbon tetrachloride resistant dip tubing. For these uses nylon is commonly specified. Metering tubing, which is discussed below, requires greater stiffness and is therefore extruded from a high-density polyethylene compound. Tubing for glass aerosols is available in attractive, transparent pastel colors to blend better with various contents. And other new compounds can be developed for specific needs.

Cutaway view shows dip tube assembled to the valve and correctly positioned in container. Valve material, construction and proper assembly are critical in determining satisfactory performance of an aerosol throughout its intended life. (*Anchor Plastics photo*)

Reprinted from the 1959 Modern Packaging Encyclopedia Issue. Copyrighted. All rights reserved. Modern Packaging Catalog, 575 Madison Ave., New York 22, N. Y.

Size specifications

Many considerations determine the mechanical specifications of the dip tube. The inside diameter is governed by the actual size of the valve nipple; the wall thickness, by the type of material chosen; and the length, by the height and contour of the container.

The tubing may be supplied in coils, on disposable spools, in random straight lengths or cut to finished size. Tubing put up in spools will keep its slight curvature which permits it to reach the lowest point of the container with a convex bottom. In those limited applications where a straight tube is required, long lengths or pre-cut tubes are supplied. The latter may be furnished with square, angular, or pinked cut ends. The angular and pinked cuts prevent bottoming of the tube and clogging of the opening. This type of cut is also specified for rapid discharge applications such as fire extinguishers and garden sprays. Nylon tubing which does not lend itself to automatic staking is also furnished pre-cut to size.

Special applications

Although the majority of tubing is used on the standard aerosol valves, rigid and flexible extrusions are used in lotion pumps, sprayers, pouring spouts, atomizers, syphons and breathers. The extrusions may be made with any combination of inside and outside diameters; plain, fluted or beaded walls; in multiple strands; fabricated to specified curvature with holes or slots.

The recent introduction of metering valves which dispense small quantities, or even drops, has required the introduction of a line of small bore tubing with inside diameters ranging from 0.010 to 0.025 inch. This tubing requires little priming by the aerosol consumer due to its low capacity. The small bore also increases the internal friction limiting the flow of the dispensed liquid. The walls of the tube are kept over 0.030 inch to increase stiffness which is required for the staking operation.

[*Aeroflex "P" developed by Anchor Plastics]

We are pleased to bring you this article for your information.
America's Leading Manufacturer of Aerosol Dip Tubes
ANCHOR PLASTICS CO., INC. **36-36 36th St., Long Island City 6, N. Y.**

For success in creating

Aerosol perfumes and colognes

rely on Givaudan ability

Superior skill, artistry, creative imagination, knowledge of consumer preferences...these are the foundations on which a successful perfume or cologne is built. But...an aerosol fragrance requires even more.

Givaudan offers a complete line of perfume and cologne fragrances which have been specifically prepared to meet the requirements of pressure packaging. Or, we can custom-make a fragrance to meet your specific aerosol needs.

Our staff will welcome the opportunity to discuss your aerosol fragrance requirements.

GIVAUDAN-DELAWANNA, INC.
321 West 44th Street, New York 36, N. Y.

to understand her problems and who is willing to point out something new to her."

Miss Green holds that "fragrances are particularly good subjects to bring up after a woman has completed purchasing the cosmetic she came in for. If the druggist keeps his perfume test bottles *behind* the cosmetics counter instead of on top of it, when he completes the sale he can bring one out and ask his patron if she would like a little on her wrist. Few women will refuse this offer, and a natural lead-in to a companion sale has been established. Keeping the samples behind the counter insures the druggist that the perfume will be applied under his supervision, and will be tested properly by the customer."

She offers these suggestions about how to show fragrances to women, especially those who did not ask to see them:

". . . Apply the perfume to the wrist, at the pulse, where the body heat will best bring out the fragrance. Never allow the woman to smell it right away. Allow plenty of time for the alcohol to evaporate, or she will not like the fragrance.

"Never allow the customer to test more than three fragrances at one sitting. After she has tested three, she will be unable to smell the true fragrance of another product. Even the third one becomes distorted to a certain degree. This limit also helps the druggist make a sale more quickly to a customer who, if allowed, would probably test every fragrance in the store before deciding."

Mr. Gaffen declared that his company has found that hair coloring does *not* usually lend itself to a self-service type of operation. "This is because in self-service the lady will pick out only the product she wants, but she is not open to suggestions from you as to allied products.

"Because the permanent hair colorings are a coal tar derivative, the Federal law has made it mandatory that all people interested in using coloring of this nature give themselves a predisposition, or patch test. There is nothing to be alarmed about; the patch test merely serves as a guide to show if the person is allergic to haircoloring. The druggist does a new user a service by telling her about the patch test, as it helps her gain confidence.

"Hair color is an item which will bring the customer back into the pharmacy at least 12 times a year. Once she has colored her hair it is necessary for her to keep on reapplying color every four weeks in order to maintain her meticulous appearance."

Mr. Jackson advises the drug merchandiser to set up a separate department for men's toiletries, built around shaving creams, hair lotions, deodorants, etc. This he points out, will lure the customer into making related purchases of products he didn't intend buying when he came into the store.

•

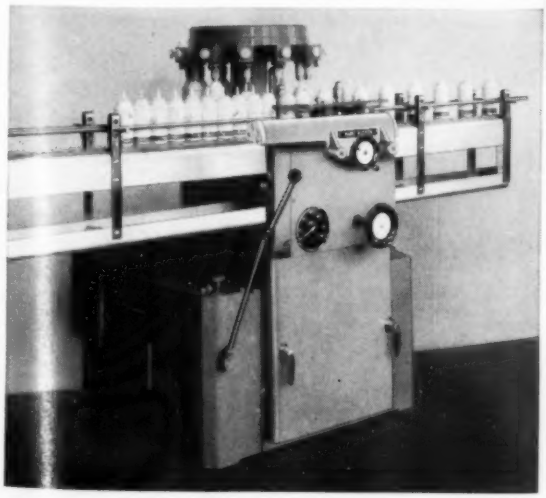
THE recent merger of van Ameringen-Haebler and Polak & Schwarz may signal a wave of mergers among fragrance and flavor companies seek-

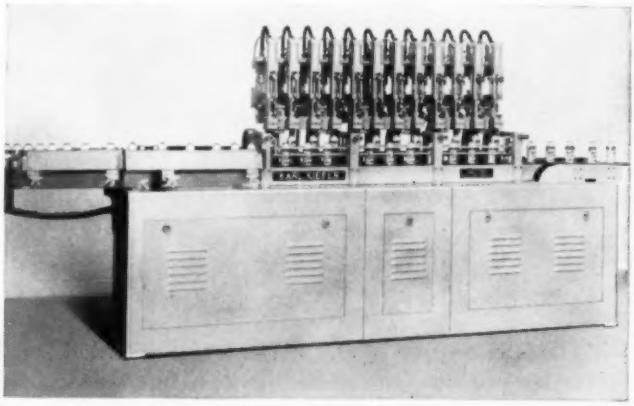
(*Continued on Page* 84)

The Kiefer

AEROSOL

FAMILY IS COMPLETE ! ! !





. . . ROTARY or STRAIGHT LINE
"GAS JET" CHARGING UNITS
FOR LIQUID and GASEOUS PROPELLANTS

Remember, too, there is a Kiefer FILLING Machine to satisfy your every need, for measuring liquids — semi-liquids—pastes.

"Gas Jet"

Write for our treatise on Aerosol procedure.

The Karl Kiefer Machine Co.

ESTABLISHED 1890

934 MARTIN STREET CINCINNATI 2, OHIO

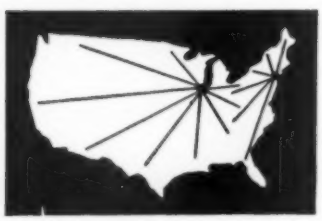
NEW YORK • BOSTON • CHICAGO • SAN FRANCISCO • PHILADELPHIA
HOUSTON • VANCOUVER • SAVANNAH • LOS ANGELES • LONDON, ENGLAND

GET THE FACTS ABOUT THE MANY ADVANTAGES OF G. BARR & COMPANY TWO-PLANT AEROSOL PACKAGING SERVICE

In New York—as in Chicago—you can enjoy the outstanding research, product development and precision aerosol packaging service of a G. Barr & Company *local* plant and also share in the *many advantages* of G. Barr & Company *two-plant* operation.

Among these advantages are the potential savings in both shipping and production costs. You also enjoy the benefits of our unsurpassed laboratory facilities, of our two-plant buying power, our time-tested quality controls and the important know-how gained over the years in the production of hundreds of millions of aerosol packages.

There are many other important pluses which *only* G. Barr & Company can offer. We would like to tell you about them, at your convenience and without obligation. Just contact our nearest office for facts.



NEW YORK
4747 Bronx Blvd.
FAirbanks 5-7870

CHICAGO
3601 S. Racine
YArds 7-1700

G. BARR & COMPANY
PRIVATE LABEL AEROSOLS

Sales Promotion for the Aerosol Industry

By Donald L. Arends
Advertising and Public Relations Counselor
LaGrange, Ill.

THE aerosol industry today is on the verge of a more successful period of sales volume and development than it has ever even approached before.

Its remarkable growth during the past ten years has encouraged the creation of many new small and medium-sized companies, and has lured a great number of non-aerosol firms into the production of aerosol components and materials. However, despite all this prosperity, a great number of these companies have been neglecting one highly important marketing concept almost inevitably employed by the large and well-financed corporation—that of an integrated, well planned promotion effort. Too often the problems of personnel, research, production, new design, and product distribution have taken marked precedence over any kind of a sound, well-planned promotional marketing concept.

This shortcoming is certainly understandable, particularly when one considers the tremendous production demands that have been made upon nearly all of these aerosol companies. However, now that the industry has arrived at the threshold of a period of what promises to be tremendous prosperity, its members can no longer afford to ignore the importance of concrete advertising and sales promotion planning, and should develop definite planning habits along these lines.

It should probably be pointed out, at the outset, that the primary function of good advertising is to *reduce the cost of selling!*

A well-prepared advertising and sales promotion campaign can be an aerosol company's most economical and efficient sales tool. On the other hand, a hit-or-miss program, without any specific objectives, is generally a costly investment, and often unwise.

Since the aerosol industry is a new, vigorous, and growing one, there are three areas on which small and medium manufacturers can concentrate to make their advertising and sales promotion efforts pay bigger dividends. These are:

1. Establishing a stronger corporate or company "identity."
2. Integration of all promotional efforts, regardless of how small or unrelated they may seem.
3. Establishing a policy of setting aside a percentage of each year's gross sales, to be used specifically in effectively communicating the company product and sales stories to the aerosol markets.

Though the term "corporate identity" sounds a little pompous, it shouldn't really. Primarily it means the visual impression that your company's written business and printed promotional "face" makes upon present, past, and potential aerosol customers throughout the world. It's the mental image created for a company's customers before your salesman walks in the door. If the image is a sound, successful, and inviting one, half of your salesman's job will be done before he enters the customer's office. He doesn't have to sell himself, *then* the company, and *then* the product. On the other hand, if the image is confused, weak, and represents an unrelated or cluttered picture of your products to potential buyers, the salesman will have twice the job to do, at that much higher cost.

A company image can be established quickly and easily; and, in most cases, at fairly small expense, regardless of the size of company. All it takes is a little bit of careful planning.

The first step calls for some thinking out loud. Imagine a situation in which someone were asked to give a concrete answer to the question: "What would *you* like to have people think of your company?" How would you answer? Think a minute now before you answer and then write down the best solution in front of you. You've just taken the first and most important step. But remember, your company image should reflect your *specific* requirements or abilities to produce sound products or services for buyers in the aerosol field. You may wish to stress your research facilities, your engineering abilities, product quality, or your manufacturing facilities or your delivery. The important thing is that you evolve one sound, and thoroughly simple art design or simple slogan of what you want people to think of you. Well-known examples

YOUR PRODUCT DESERVES A PEERLESS CONTAINER

Collapsible metal tube or aluminum aerosol—if it's made by PEERLESS, it has a half-century of inventiveness, resourcefulness and technical know-how behind it. Let's look at the record!

- The introduction of bakelite caps for metal tubes.
- A vastly improved machine for the internal waxing of lead tubes. Redesigned and patented, this unique machine continues to solve compatibility problems all over the world.
- The application of internal lacquers.
- The first mastitis tube. This development made possible the administration of antibiotics to afflicted cattle and has saved the dairy industry about one half-billion dollars each year.
- A machine for applying and fastening plastic necks to collapsible metal tubes (patented 1947).
- The introduction (1949) and development of polyethylene closures for collapsible tubes.

These PEERLESS firsts have helped the collapsible metal tube to attain its present position as the package without equal for firm-consistency products. Modern, dependable and convenient, it preserves its contents over a long shelf life.

And when it comes to Aerosols...

PEERLESS, with its 50 years of impact extrusion experience, has pioneered in extruded aerosol containers made of aluminum — the preferred metal for your drug or cosmetic products.

Aluminum Aerosols by *PEERLESS* have these important advantages

FOR YOUR CUSTOMER 1. Combined durability with beauty. 2. Contents cannot spill, leak or evaporate. 3. Best method of dispensing many products. 4. Sizes ideal for travel, the purse, the vanity table and the medicine cabinet.

FOR YOU 1. Preciseness of valve-cup fit greatly improved by patented* process. 2. Container is sturdy and seamless to withstand all required pressures. 3. Tested by more than three years of manufacture and use. 4. Available in a choice of diameters and lengths for each size—½-ounce to 4-ounce.

NO FINER METAL CONTAINERS MADE ANYWHERE **PEERLESS** *TUBE COMPANY*

BLOOMFIELD, NEW JERSEY

*U. S. PATENT NO. 2,856,102—OCTOBER 14, 1958

are, "Progress is our most important product," "Creative Aerosol Valve Engineering" or, "The beer that made Milwaukee famous." Keep in mind these key points concerning any symbol or thought you may want for a company image:

1. Try to have it related to your name and company product as it applies to the aerosol industry.
2. Think 10 and 20 years ahead, if possible, and make sure that the image is expandable and flexible enough so that it will not become confusing or nonrelated as you (or the aerosol industry) grow and prosper.
3. After you have picked the image, make sure that all of your personnel, sales force, representatives, outlets and related people understand it, learn to speak in the same vein, and to sell the same concept of your corporation or company image.
4. Then use your image or slogan on your letters, stationery, invoices, envelopes, shipping cartons, memo pads, Christmas cards, acknowledgment orders, etc. Once you have it, use it *continuously* and use it *everywhere*.

Naturally, this doesn't have to be an all-inclusive program. You might simply start with a redesign of your letterhead to come up with a clean, inviting company image created through your correspondence. Your company's packaging or shipping cartons can easily carry the printed identity symbol or theme (in most cases at very little additional cost) and, of course, use it in all your ads. Remember, an established corporate image always gives your salesman something extra to work with. When he walks in the door he definitely IS someone in representing your company full and foremost. The thought on the mind of the purchasing agent or sales manager might be, "Oh, yes, I'll see Joe. I know his company, they're the people who fill faster and better through automation." The thought probably came from the written image he saw on letters, in advertisements, or at trade shows, or it may only be a subconscious (but receptive) frame of mind.

Another area on which most small and medium sized manufacturers can capitalize (in improving their overall promotional effectiveness) is thorough integration of *all* their promotional activities. Again, although this is a relatively uncomplicated concept, it can give any company's promotional activities a real boost. Through careful promotional coordination and planning, a theme or company philosophy can be communicated effectively to past, present, and potential aerosol customers, and it will both bring results faster and push that sales curve up more economically.

Again, there are a few basic steps that can be used in applying a "family resemblance" or "thread of continuity" to your whole promotional effort.

First, when you say something about product features, benefits or advantages over competition, say it the same way in your advertising, in your sales letters, in your product brochures, and in your direct mail contacts. No single feature will distract more, in such a technical industry as the aerosol field (where we are dealing with intelligent and curious chemists, machinists, engineers, etc.) than to set up inconsistencies in the way product features are described or outlined over a period of a few months. Prospective customers are often careful enough (or interested enough in your products), to mentally relate the different pieces of promotional material you send out, so, be consistent! If the copy theme is accurate, precise and informative, saying the same thing (so far as facts and features are concerned) throughout all of your promotional material, improves your whole marketing concept tremendously.

Second, in direct mail advertising don't be afraid of repetition in your headline, introductory sentence in a letter or first page. Repetition throughout your integrated promotional campaign again will make a more effective penetration into the minds of the people you are trying to reach.

Third, take a good look at your mechanical or physical treatment of your material. A few simple ideas that can help improve a whole campaign presentation to a market are:

a. Use the same color scheme in your company signature throughout all your material.
b. When you get a good picture or a good illustration of a product advantage or design, use it more than once. Use it first in your news release, second, in your promotional material, and third, in your advertisement. A good picture or illustration definitely merits the treatment of repetition and does a more effective job of making a visual impression that will last longer on your potential customers.
c. Wherever possible, have your materials printed together, and group them up in layout, copy, and art stages. This simple approach itself can save you anywhere from 25% to 50% of your total production costs. This is basically only integration of your mechanics, but it pays off as well as integration of your company thoughts.

This whole approach to tying-all-your-pieces-together is especially significant when operating on a small budget. Larger companies can afford to diversify and throw out many different approaches on a large-scale basis. The small or medium-sized manufacturer must make his advertising dollar work a great deal harder, since it makes a smaller, less frequent contact with his overall markets. Your whole promotional program may consist of no more than five pieces for the entire year. One certainly can see the justification of doing these pieces as a group and making them work together, telling the same story, as against using five individual scattered shots that may make little or no impression at all on the total market. Most large manufacturers in the U. S. today use planned, well-integrated programs because they have come to

(*Continued on Page* 84)

SEE THE DIFFERENCE CREATIVE PACKAGING MAKES!

VISIT CANCO'S EXHIBIT AT THE A. M. A. PACKAGING SHOW!

Looking for more sales "sizzle" for your products? Then a visit to Canco's exhibit at the National Packaging Exposition will pay you well.

Here you will see Canco's Creative Packaging on display—a variety of containers to increase the consumers' desire for *your* product.

So when convention time comes—that's April 13-17 at Chicago's International Amphitheatre—be sure you stop at Canco's Booth #129. You'll be glad you did.

ANCO Division **AMERICAN CAN COMPANY** NEW YORK • NEW ORLEANS CHICAGO • SAN FRANCISCO

Consultant's Corner

by Robert A. Foresman, Jr.
Aerosol Consultant
Philadelphia, Pa.

The Demand for Short-Run Production Facilities

MY THOUGHTS this month do not encompass anything new, unusual, or startling for our industry, but they are apparently pertinent.

I have received continued comments from all geographical areas and all types of potential customers that small runs of products are simply not available from a practical standpoint. In most cases I have been able to arrange for initial production in small quantities and have had the pleasure of seeing a number of these pilot operations turn into continuing runs of respectable size.

The supply of short production runs seems to rely on a by-now nearly classical sequence of events. A new filler enters the picture and in order to stimulate business, offers production runs of any size. Small runs come in at first and then as business increases it becomes burdensome and comparatively expensive to handle small production and reluctance sets in, followed by outright refusal to consider any output below a minimum quantity. When this point has been reached in the past, there has usually been another newcomer to step up and handle light runs (until he in turn decides it is uneconomical).

To say that this state of affairs is difficult for a potential customer is to understate the truth. Despite some talk of recession and lowered profits, this situation is still being reported and good faith customers can only wonder how they are supposed to get started sensibly if they cannot track down one of the "newcomers" eager for work.

Of course it is obvious that to clean up an entire atuomatic line for the sake of even a couple of hours production is generally out of the question. Where only a thousand or two packages are concerned the problem is practically unsolvable if automatic equipment is considered.

If an effort is made to turn a difficult situation into a profit making one, the solution becomes apparent. A small hand transfer operation of minimum capital outlay — possibly tied into the water bath of an automatic line — can offer a completely desirable answer to the problem.

Under these circumstances a concentrate filler of utmost simplicity and ease of cleaning, coupled with a pressure fill gassing unit, would be the equipment of choice. If tying into the automatic line water bath is impractical, a basket transfer bath of low cost may prove to be perfectly satisfactory.

Labeling, and in almost every small run labels will be used, can be handled by stacking until labeler time is available. A more satisfactory answer, of course, is to have at least a semi-automatic labeler for the hand line, and since labels are so nearly always a factor, the outlay for the equipment can be fairly well justified.

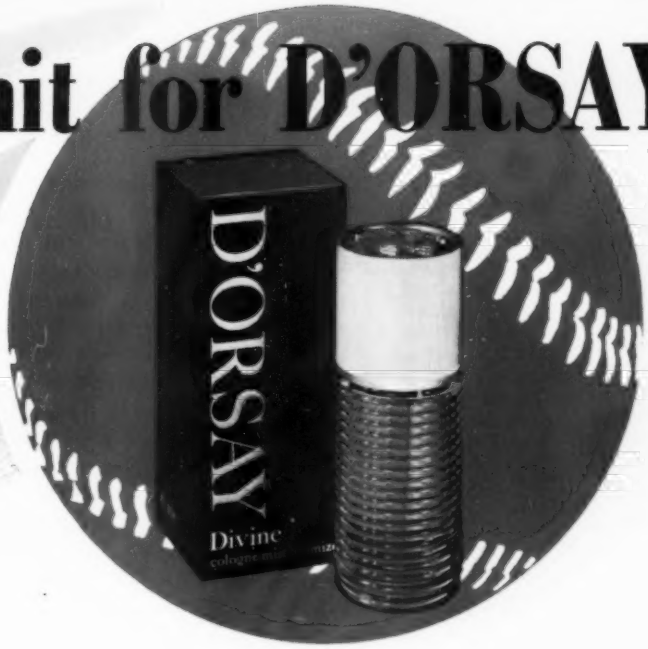
The cry may now arise that it is all right to describe such operations but what about costs to the customer. The answer here is that obviously the costs will be higher, but they can be calculated on a uniform basis at any given time and will not be dependent on whether any work in any quantity is desirable or only long runs of desirable types are preferred.

Costs, of course, can be acceptable at a higher figure for small runs and the customer will not, and cannot, balk at the quantity differential. However, one thing may turn out to be surprising — that is the amount of labor that will be found available to do the small run work when week in week out schedules are checked. This, of course, means extra profit, particularly if the hand work can be scheduled to coincide with wash up or changeover time on the other lines. This may seem unrealistic to many and in some cases it may be, but it is most unusual for personnel assigning to be so tightly scheduled that time for production of a few thousand hand packed aerosols from time to time cannot be worked out with little added actual labor cost.

There will be many advantages to such a set up. First, for the fillers who are presently doing pilot runs of new products for customers using large volumes of other products, the efficiency of such a set-up may add materially to the profit picture even though in such a case profit may be considered secondary.

In those cases where a totally new customer is endeavoring to get started with a small run, the fact that you can handle his order efficiently and economically will keep him with you as he grows. By the law of averages this must inevitably take place —at least occasionally and if it occurs even a small percentage of the time the operation will more than pay for itself. This approach allows you to make big customers out of little ones, which is the easiest way to get them.★

another hit for D'ORSAY...



with an assist by VCA

D'ORSAY of Paris is batting high in sales and consumer acceptance with its new COLOGNE MIST ATOMIZER. It features the VCA "Mist Top" Valve and Low Pressure Actuator. Packaged in 1½ and 3 ounce sizes in the renowned D'ORSAY fragrances—Intoxication, Divine, Fantastique and LeDandy.

VCA exclusive one source service and technical assistance can propel your product into quick leadership, too.

Call VCA today, or send specifications for samples and prices.

VCA INCORPORATED

VALVE CORPORATION OF AMERICA, Inc.
1720 Fairfield Ave. • Bridgeport, Conn.

NEWS of Pressure Packaging

Scattergood to Reed Co.

Reed Research Corp., Shelton, Conn., aerosol consultants, have announced the appointment of John G. Scattergood to be sales manager of the company's Marketing Division.

He was previously associated with Powr-Pak, Inc., Bridgeport custom filler, and prior to that was assistant manager of aerosol sales for A. Schraders Son Division of Scovill Manufacturing Co., Brooklyn.

Mr. Scattergood's appointment is part of an expansion of personnel and facilities by Reed Research to cover contract filling of small and test market runs. The contract filling business will be an addition to its consulting and laboratory-production equipment supplying services.

•

Precision Offers Licensing Pact

The Colgate-Palmolive Co., New York, has entered into a licensing agreement with Precision Valve Corp., Yonkers, New York, valve manufacturer, permitting Colgate to package, under Precision's pending patent application, a pressure dispensed tooth paste in an aerosol container.

"In the interest of establishing a sound marketing basis to facilitate widespread merchandising of the product," Precision has announced the availability of similar royalty-free licensing agreements to all companies currently marketing aerosol dentifrices.

•

FTC Cites Hair Spray Product

The Federal Trade Commission last month approved a consent order requiring Max Factor & Co., Hollywood, Calif., to stop misrepresenting that its "Natural Wave" spray will change naturally straight hair to naturally curly. The order also forbids claims that Natural Wave will change the structure of the hair.

In taking this action, the Commission affirmed Hearing Examiner Earl J. Kelb's initial decision based on an order agreed to by Max Factor and the FTC's Bureau of Litigation. Factor had been charged, in a Commission complaint issued last October 15, with making these false claims in television, magazine and other advertising.

The complaint cited a typical TV commercial showing a model first with straight hair and then curly hair. During this video sequence, the phrases "change the structure," "from naturally straight" and "to curly" were both superimposed on the screen and spoken by the announcer.

The agreement is for settlement purposes only and does not constitute an admission by the company that it has violated the law, the FTC pointed out.

Lehigh, OEL Name Burke

Lehigh Manufacturing Co., Easton, Pa., last month announced the appointment of Richard F. Burke as national sales representative for the company's new line of liquid receivers and receiver-condensers for refrigeration and air-conditioning systems.

At the same time, Oil Equipment Laboratories, Inc., Elizabeth, N. J. named Mr. Burke to be its sales manager west of the Adirondacks. According to Jack Wittke, Oil Equipment president, Mr. Burke will handle both aerosol valves and pressure filling equipment.

Mr. Burke, who was formerly general sales manager of the Tube Manifold Corp., has set up headquarters at 40 Pelham Drive, Buffalo 14, N. Y.

LaMaur Announces Details of Hair Spray Licenses

LAMAUR, Inc., Minneapolis hair spray marketer and custom filler, late last month made public details of the licensing arrangement it has offered leaders and marketers of PVP and PVA-based hair sprays. In January, LaMaur was issued U. S. Patent No. 2,871,161 covering a "sprayable water-free alcoholic polyvinyl pyrollidone hair preparation," on the basis of which it has offered licensing arrangements to 125 loaders of hair spray.

The issuance of the patent to LaMaur was somewhat reminiscent of the "Rise" shaving cream patent issued to Carter Products, since in both cases the patent was granted long after many marketers had introduced their own corresponding products. Carter fought a long court battle with Colgate-Palmolive over its shaving cream patent.

In the licensing offer announced late last month LaMaur offers, to those firms "who voluntarily accept a license," the continued packaging of hair sprays upon payment to LaMaur of a royalty of one-half cent per popular-sized container (exceeding four and not over 16-ounces). For the less-than-four-ounce "purse size," the royalty will be one-quarter cent; and for containers larger than 16 ounces, a "comparable rate." The company requests that the licensee keep it informed about what size package it is filling.

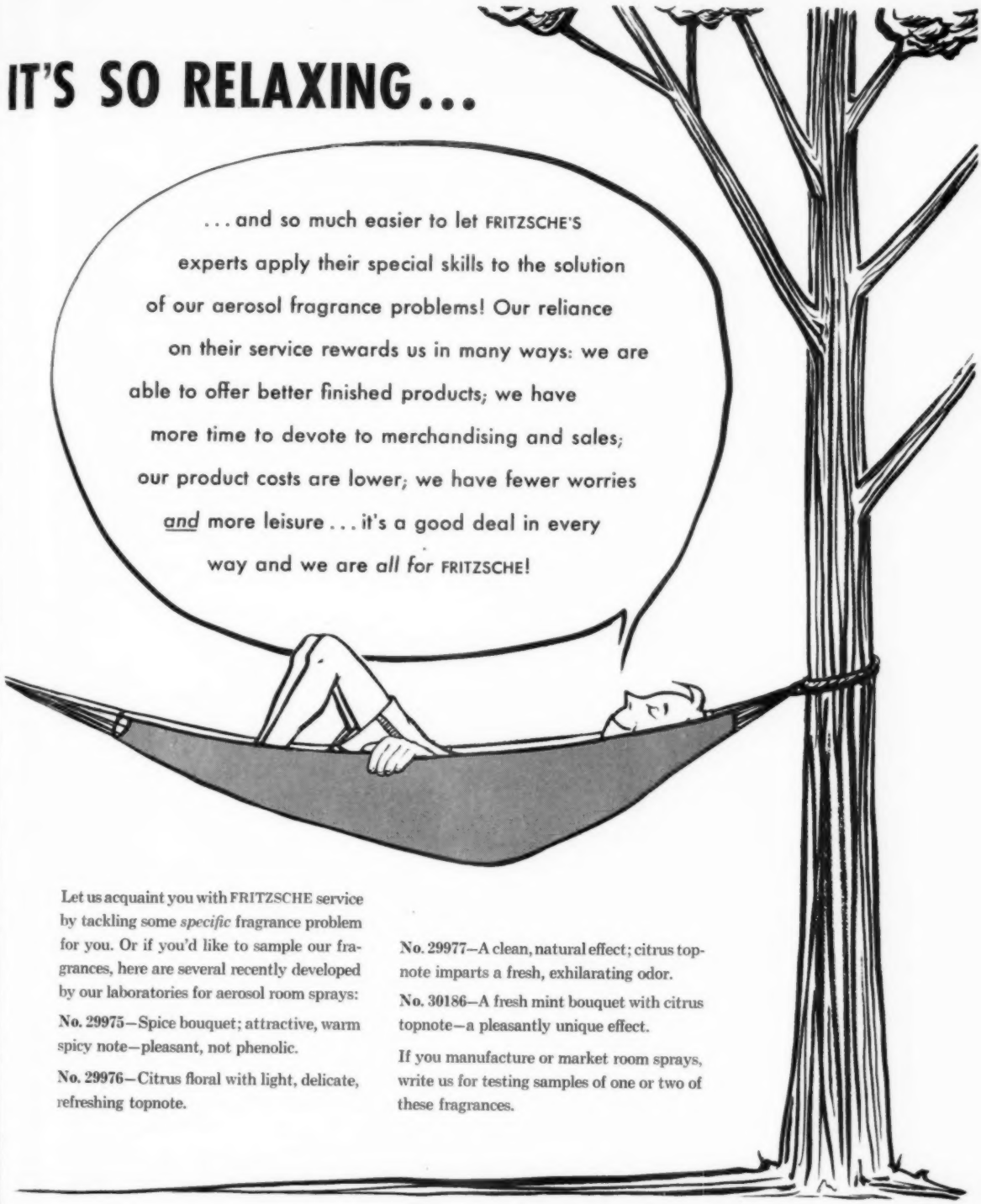
These royalty fees, LaMaur points out, are offered on the basis that licensing agreements are signed on a voluntary basis "within a reasonable length of time." According to Arthur Cain, LaMaur attorney, the company means this in the "true sense," and interprets it as affording hair spray fillers an opportunity to fully study the patent. He implied that companies which do not sign such agreements would not be eligible for the minimum royalty scale set forth in the paragraph above.

•

Factor Appoints Walance

Max Factor & Co., Hollywood, Calif., has named Robert W. Walance as product manager for the company's United States Merchandising Division.

IT'S SO RELAXING...


. . . and so much easier to let FRITZSCHE'S experts apply their special skills to the solution of our aerosol fragrance problems! Our reliance on their service rewards us in many ways: we are able to offer better finished products; we have more time to devote to merchandising and sales; our product costs are lower; we have fewer worries and more leisure . . . it's a good deal in every way and we are all for FRITZSCHE!

Let us acquaint you with FRITZSCHE service by tackling some *specific* fragrance problem for you. Or if you'd like to sample our fragrances, here are several recently developed by our laboratories for aerosol room sprays:

No. 29975—Spice bouquet; attractive, warm spicy note—pleasant, not phenolic.

No. 29976—Citrus floral with light, delicate, refreshing topnote.

No. 29977—A clean, natural effect; citrus topnote imparts a fresh, exhilarating odor.

No. 30186—A fresh mint bouquet with citrus topnote—a pleasantly unique effect.

If you manufacture or market room sprays, write us for testing samples of one or two of these fragrances.

FRITZSCHE BROTHERS, Inc.

76 NINTH AVENUE NEW YORK 11, N. Y.

Branch Offices and *Stocks: Atlanta, Ga., Boston, Mass., *Chicago, Ill., Cincinnati, Ohio, Greensboro, N. C., *Los Angeles, Cal., Philadelphia, Pa., San Francisco, Cal., St. Louis, Mo., Montreal and *Toronto, Canada; *Mexico, D. F. and *Buenos Aires, Argentina. **Factories:** Clifton, N. J. and Buenos Aires, Argentina.

British Cosmetic Meeting

Program details of the British Congress of Cosmetic Science, which will be held in London April 15-17, were announced recently by the group's program committee. Included are the following papers of interest to the aerosol industry:

Analytical Methods of Assessing the Value of Perfumery Raw Materials, by H. van den Dool.

The Function of Consumer Testing in Product Development and Marketing, by L. H. Ovens.

Laboratory Tests As a Basis for Accurate Product Market Testing, by Donald H. Powers.

Patch Testing Methods, by E. J. Moynahan.

Corrosion of Iron and Aluminum, by K. F. Lorking and J. E. O. Mayne.

Cosmetics, Allergy and Skin, by J. C. Feinberg.

A group of delegates from the U.S. Society of Cosmetic Chemists will leave New York April 12 to attend.

■

Coe to Silicone Post

The Silicone Products Department of General Electric Co., Waterford, N. Y., a prime producer of silicones for aerosol products, has appointed Jerome T. Coe to the post of department manager. He succeeds Dr. Charles E. Reed, who became general manager of the company's Metallurgical Products Department.

Aerosol Pharmaceutical Market Called Untouched

THE potential market for aerosol pharmaceuticals is relatively untouched, Samuel N. Seely, Western district manager for DuPont's "Freon" Products Division told a Western regional meeting of the Pharmaceutical Manufacturers Association in Los Angeles recently. It is significant, he declared, that aerosol pharmaceuticals account for only a minute part of total aerosol sales in the U. S., despite the fact that the some 50 different pharmaceutical products hitherto offered possess marked advantages over conventional products.

Consumer education about aerosol pharmaceuticals is one aspect that has been decidedly underemphasized. Mr. Seely reported. He described the results of DuPont's consumer market studies which indicate relatively poor consumer knowledge of the existence of pressurized burn sprays, spray bandages, and antiseptics.

Two other DuPont Western representatives, G. J. Roewe and P. M. Dahlen, supplemented Mr. Seely's paper with a more detailed discussion of the aerosol prospects for conventional pharmaceutical marketers. Mr. Roewe pointed out that aerosols, though not a "panacea" for all packaging problems, have a record of generally improving sales and profits in companies where conventionally dispensed products have been converted to aerosol forms. Aerosol conversions of this type, he declared, "facilitate consumer usage and product efficiency, and improve consumer satisfaction. This leads to greater sales."

Both speakers discounted any possibility that the aerosol volume for all products is beginning to level off. "We are on the brink of new sales heights in aerosol products, since the price of an effective aerosol does not limit its sale to any one income class," Mr. Roewe said.

"Where there have been aerosol and non-aerosol products available for comparison, it has been found that the aerosol is preferred, except in the cases of personal deodorants and shampoos—two categories in which there really hasn't been a good product that would hold up in the pressurized container generally available."

Mr. Roewe declared that the growing pharmaceutical market behooves the individual manufacturer to search for new ways to make his own sales grow at a rate faster than either the general population growth or the growth and sales of his competition. The aerosol is the perfect medium to do this in many phases of pharmaceutical retailing, he said.

W. C. Meuly Joins Rhodia

The appointment of Dr. Walter C. Meuly as director of research for Rhodia, Inc., has been announced by the New York headquarters of the perfume and essential oil firm.

Dr. Meuly was formerly associated with E. I. Du Pont de Nemours in New Brunswick, N. J. for 35 years in various capacities which included, production manager of the Fine Chemicals Division's New Brunswick plant; and, more recently, research associate specializing in organic (synthetic) chemistry at DuPont's Jackson Laboratory.

Dr. Meuly is a graduate of the famous Polytechnic Institute of Zurich, Switzerland and is considered a foremost authority in aromatic chemical research.

●

Colton Purchases Hope

Purchase of the Hope Machine Co. 50-year-old Philadelphia builder of filling machines, by the Arthur Colton Co., Detroit, was announced late last month by K. B. Hollidge, executive vice president. In making the announcement, Mr. Hollidge said that the acquisition would enable Arthur Colton to offer for the first time a complete line of filling machines for packaging processes in the pharmaceutical, food products, paint, chemical, building products and dairy products industries.

The Hope line of piston-type filling machines for liquid, viscous and semi-solid products complements the present Colton line of piston fillers. Hope fillers have been extensively applied by the food and dairy products industries for large-volume fills. They are now one of the most widely accepted fillers for aerosol container filling lines. Colton-Alpha machines for all phases of the aerosol filling process except that of filling are now being marketed, Mr. Hollidge went on to say, and Hope equipment will also enable us to provide a complete range of machinery for aerosol container filling.

A 25% percent increase in annual Colton sales is expected by Hollidge as a result of the Hope acquisition. Colton has purchased all Hope inventory stocks and will service all Hope machines now in the field. The machines will be sold under the name "Colton-Hope."

Owens-Illinois Pressure Packages...

These new plastic coated glass containers combine convenience and product protection

These new Owens-Illinois plastic-coated glass packages give your pressure-packed products the protection which only *glass* can provide.

These convenience packages are the result of careful research, engineering, and design by Owens-Illinois who is ready to supply technical help in the packaging of *your* product.

Brilliantly dressed in a wide range of exciting colors and topped with handsome caps, Owens-Illinois plastic-coated glass containers can be decorated with any design to create eye-catching, sales-building packages.

DURAGLAS CONTAINERS
AN (O) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

Time to get ready with your

Aerosol Suntan Preparations

The Schimmel aerosol laboratory has a wide range of perfumes which have been exhaustively tested for suitability in each type of preparation

•

Send us details as to your product and we will be glad to submit samples.

schimmel & co., inc. 601 west 26th street new york 1, new york

Dutch Packaging Fair

Final plans are being completed for the fifth International Packaging Exhibition, called "Europak 1959," which will be held in the RAI Building at Amsterdam, the Netherlands, from April 21-28. The exhibition will be held during the time the Dutch tulip fields will be in full bloom, a major Dutch tourist attraction.

So far exhibitors from some 18 countries will display their wares and services at the fare, though the lion's share of foreign participation will be from Great Britain, Germany, and the U. S. Exhibition officials point out that the idea for Europak came from a recent study that revealed that 11% of the working population of The Netherlands makes its living from work which in one way or another is connected with packaging.

The April exhibition will be held under the auspices of the Netherlands Packaging Centre, which has itself been in existence for only six years. One of the features of Europak 1959 will be the bi-annual meeting of the European Packaging Federation.

•

Canners Elect Sorensen

Norman Sorensen, chairman of the board of Country Gardens, Inc., Milwaukee, was elected president of the National Canners Association at its recent convention in Chicago. He succeeds Edward E. Burns, president of Alton Canning Company, Inc., Alton, N. Y.

Milan D. Smith, president of the Smith Canning and Freezing Company, Pendleton, Ore., was elected vice president. He was executive assistant to Secretary of Agriculture Ezra Taft Benson for three years (1954-57).

Carlos Campbell of Washington, D. C., was continued in office as executive secretary-treasurer.

•

Mondart Unveils New Products

Mondart, Ltd., newly-formed London subsidiary of Commercial Plastics and Thomas Tilling, British holding companies, last month began distribution of its new product line. The line, appearing under the tradename "Max" will include a fly killer, a moth proofer, and an air freshener. They will sell at 4s 6d each (63 cents) and will be marketed in department, drug, hardware, and grocery stores throughout Great Britain.

•

Scovill Names 2 in Sales

The Cosmetic Container Division of the Scovill Manufacturing Co., Waterbury, Conn., has announced the appointments of Lamson M. Scovill as Eastern district sales manager and John H. Gelwicks as Western district sales manager. They will report to Mr. W. H. Harris, product manager of the Division.

Mr. Scovill joined the company in 1932 in the advanced training program, and from 1934 until 1941 was assigned to the general manufacturing production department. Following service in the U. S. Navy, he joined the company in 1945 as salesman for cosmetic containers in the New York area. He will be responsible for the territory east of Cleveland. First vice-president of CIBS, Mr. Scovill is also past chairman of the TGA Convention Commitee and is a member of BIMS.

Mr. Gelwicks joined the company in 1945 in the advanced training program, and in 1946 was assigned to the Cincinnati office as sales engineer for the General Manufacturing Division. In 1948 he was transferred to the Chicago office in the same capacity and in 1952 he became salesman for the Cosmetic Container Division in the Chicago area. He will be responsible for the territory west of Cleveland. He is a member of the Chicago Perfumery, Soap and Extract Association.

•

To Sell Stockpile Pyrethrum

The General Services Administration last month announced plans to sell part of the national stockpile of pyrethrum extract to insecticide suppliers. The Administration plans to offer about 66,000 pounds of 20% grade extract on the market in about six months.

The announcement came on the heels of a decision, by the Office of Civil and Defense Mobilization, that there is no longer any need to stockpile this quantity of pyrethrum. The sale will mean no reduction in price for insecticide formulators, since the product will be marketed by the GSA at current market prices.

•

Acrolite to New Plant

Acrolite Products, Inc., West Orange, N. J. aerosol paint and fixative marketer and custom filler, last month moved to a new plant at 810 Martin Street, Rahway, N. J. Phone number of the new plant is Fulton 1-4600.

Drug Cosmetic Show in Sept.

The 12th annual Drug, Cosmetic and Sundry Show this year will be held at the Sheraton-McAlpin Hotel in New York, Sept. 13-15, it was announced early last month by the Pharmaceutical Council of Greater New York. The 1959 show is expected to set new records of attendance in the number of exhibiting companies and volume of business done during the three days of the event.

An additional feature this year will be an entire section of rooms provided for the cosmetic and toiletries industries, a move calculated to reinforce the intensive campaign to promote a greater volume of cosmetic and toiletry sales through the medium of the drug store.

•

Rexall to Exhibit at Fair

The Rexall Drug Co., Los Angeles, has been requested by Walter S. Shafer, Director, Office of International Trade Fairs, Department of Commerce, to set up a model drug store at the Poznan, Poland International trade fair, June 7 to 21. General theme of the fair, considered one of the most important held in East Europe, is "Industry in the Service of the Consumer."

The model Rexall exhibit will include displays of prescription drugs, cologne, jewelry, perfume, gift items, magazines, tobacco, self-service toiletries and non-prescription drugs.

Primary objective of the display, according to the Office of International Trade Fairs, "will be to emphasize to the people of Poland that in the U.S. the customer is king, and that our producers design and manufacture goods to suit him." More than half a million persons behind the Iron Curtain are expected to view the model Rexall drug store during the two-week run of the fair.

"We are delighted to have this opportunity to show a Rexall drug store in a Communist bloc country" Justin Dart, Rexall president, stated. General supervision of the project by Rexall is being handled by Edwin H. Vick, vice-president of the Rexall Division of the Rexall Drug.

a great team... now up to bat

the finest engineering . . .

the finest production facilities,

and the finest

field service program,

backed by strong financial resources,

are now available

in complete ***aerosol***

packaging machinery

by

Mojonnier Associates

a division of

Kartridg-Pak Machine Company,

a subsidiary of

Oscar Mayer & Co., Inc.

9151 Fullerton Ave.

Franklin Park, Ill.

See new high-speed Rotary pressure-fill line in operation

Booth 689-695 National Packaging Exposition

Chicago, April 13-17

Shiftan Visits Europe

Ernest Shiftan, vice-president and chief perfumer of van Ameringen-Haebler, a division of International Flavors & Fragrances, Inc., New York, is in Europe visiting company plants in England, Holland and France. Mr. Shiftan, who is a former president of the American Society of Perfumers, is making a study of the company's overseas creative operations.

•

CSMA Lists Program Outline

The CSMA last month issued a basic program outline for its 45th mid-year meeting, which is scheduled for the Hotel Drake in Chicago, May 18-20. As with previous meetings, this year's will devote its first day to meetings of the board of governors and committees and subcommittees.

Monday, May 8
Board of Governors
General Committees
Division Executive Boards
Division Scientific Committees and Subcommittees

Tuesday, May 9
Division Meetings
General Luncheon
Company "Open House"

Wednesday, May 20
General Meeting
Luncheon
Division Meetings
Banquet

•

SAFCA License to Spain

SAFCA (France), actually La Societe Anonyme Francaise de Conditionnements Aerosols, Paris, last month announced the granting of its aerosol valve patent for Spain to Messrs. Atompres, 358-360 Independencia, Barcelona. The Spanish company will assume the name SAFCA Atompres, thus becoming the sixth firm to be associated with SAFCA (France). Other SAFCA firms are currently located in the United Kingdom, Italy, Brazil, and Argentina.

SAFCA Atompres, a leading Spanish filler, will make the valve in its own plant, use it for its own filling needs, and also make it available to other Spanish fillers. President of the Spanish company is J. B. Terradelles. Firm manager is Pedro Haro.

•

Babbitt Appoints Gaines

William H. Gaines has been named general sales manager of the Charles Antell Division of B. T. Babbitt & Co., Baltimore in what is described as the first step in Babbitt's plans to strengthen Antell's merchandising and marketing organization. Mr. Gaines was sales manager of the Kay Daumit Division of the Colgate-Palmolive Co.

•

Mulenthaler Is Dead

Dr. Paul Mulenthaler, president of Tombarel Products Corp., New York essential oils supplier, died Feb. 6 at the age of 59. Dr. Mulenthaler was internationally known as a cosmetic chemist and perfumer.

Bon Ami Appoints Shaw

The Bon Ami Co., New York, has elected John J. Shaw vice-president

John J. Shaw

in charge of marketing. He had been head of advertising and merchandising.

At the same time the company named James R. Johnston, assistant treasurer, to be treasurer.

•

Presson in New Post

P. Gerald Presson, former vice president and general sales manager of Angelique, Inc., Wilton, Conn., has joined Aloe Creme Laboratories as that company's midwest regional sales manager. He will make his headquarters at the firm's offices in Chicago, where his new duties will include supervision of all sales and other personnel for the midwest area.

world's largest assortment of metal and plastic

AEROSOL CAPS

all sizes and styles for all types of aerosol containers

write for samples and prices

THE **WALTER FRANK** ORGANIZATION

4102 WARREN AVENUE **HILLSIDE, ILLINOIS**

CHECK *Cowles* FOR DIETHYLTOLUAMIDE (DETAMIDE 95)

HAVE YOU CONSIDERED COWLES for N, N-diethyltoluamide? Acclaimed by scientists as the best repellent yet against most species of mosquitoes, fleas, chiggers, ticks, deer flies, biting gnats and sand flies—discovered and developed by the U.S. Department of Agriculture.

Cowles DETAMIDE 95 (minimum assay meta isomer—95%) is highly resistant to perspiration and normal wear-off. A greaseless, colorless liquid with a pleasant cosmetic fragrance—ideal in formulated products such as cosmetic creams, lotions and pressurized products.

Full technical information and prices upon letterhead request.

DETAMIDE 95 is packed in 5 gal. and 55 gal. drums—stocks available for immediate delivery.

Cowles

ORGANIC CHEMICAL DEPARTMENT

CHEMICAL COMPANY

Cleveland 3, Ohio

Hair Spray Toxicity Paper to Highlight TGA Meeting

A PAPER reporting on the recent Food and Drug Administration research work on inhalation toxicity of aerosol hair sprays will highlight the program of the Scientific Section of the Toilet Goods Association as that group meets at the Hotel Waldorf Astoria, New York, on May 14. The paper will be presented by Doctors John H. Draize, Arthur C. Nelson, and Sylvan H. Newburger, along with Elsie A. Kelley.

It is expected to completely refute claims made last year by three St. Louis doctors (in an article in the *New England Medical Journal*) that commercial hair sprays can cause harmful reactions in the lungs if used repeatedly over a long period of time. This conclusion of the study was hinted at by FDA Commissioner George Larrick in an address to the December convention of the Chemical Specialties Manufacturers Association. Of the four FDA researchers who prepared the TGA paper, Dr. Newburger is with the Division of Cosmetics, and the others in the Division of Pharmacology, Bureau of Biological and Physical Sciences, FDA.

Another paper on the program of interest to the aerosol industry will be "A Study of the Curling Action of Water, Hair Sprays, and Waving Lotion," by E. J. Stravrakas, Fabric Research Laboratories.

Other papers scheduled are:

Allantoin and the Newer Aluminum Allantoinates, by S. B. Mecca, chemical director, Schuylkill Chemical Co.

A Quantitative Clinical Method for Comparing Antidandruff Agents, by Herbert J. Spoor, M.D., Ph.D., Department of Medicine (Dermatology) New York Hospital and the Cornell University College of Medicine.

About the Mechanism of Moisture Regulation in the Horny Layers of the Skin, by O. Jacobi, Ph.D., Kolmar Research Center.

Olfaction and Cholinesterase, by Paul G. I. Lauffer, director of research, Northam Warren Corp.

In vitro and Use Tests for the Evaluation of Degerming Agents, by Harry L. Rubenkoenig and Paul A. Majors, Hill Top Research Institute, Inc.

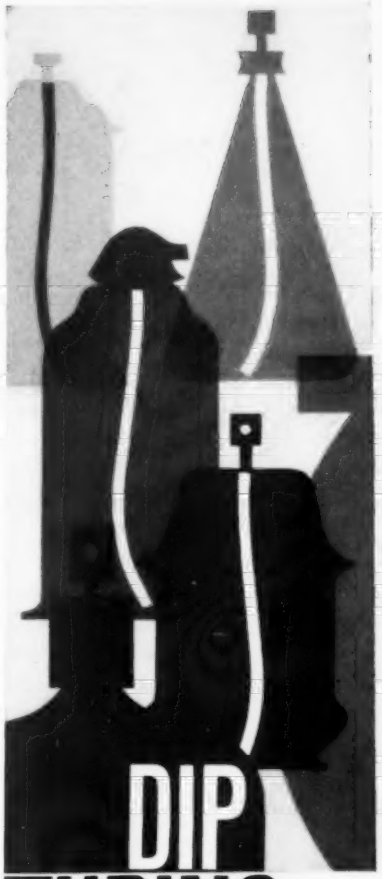
•

ATI Steps Up Drug Study

Dermatological pharmaceuticals and medicinals represent the latest major aerosol advance, according to H. R. Shepherd, president of Aerosol Techniques, Inc., Bridgeport, custom filler. He reported his company is now devoting a substantial part of its laboratory activity to dermatologicals, with Dr. Norman Orentreich, noted specialist and academician, aiding in clinical evaluation and consultation. Seven significant new products have already been developed in this category, and several are already being manufactured for leading marketers with excellent consumer response, Mr. Shepherd said.

Alpine Aromatics Moves to New Metuchen Plant

Alpine Aromatics, Inc. last month completed a move to its new location at Edison Industrial Park, U.S. Highway No. 1, Metuchen, N. J. The plant has facilities for chemical manufacturing as well as the company's specialty, perfume and aromatics compounding. Also included is a small aerosol laboratory to aid aerosol fillers and marketers in perfuming their products. In the photographs to the left is the new plant and to the right Alpine's administration building.



DIP TUBING

OUR OWN STRESS-CRACK RESISTANT FORMULAS SUPPLIED IN WHITE OR NATURAL—COILED, SPOOLED OR CUT TO EXACT LENGTH

for aerosols squeeze bottles, lotion pumps, garden sprays

Unique automated process controls quality, size & tolerance.

- NSC-1 formula for regular aerosols and lotion pumps.
- NSC-3 formula for food aerosols and for less swell.
- Nylon for food aerosols and fire extinguishers.
- Rigid vinyl for lotion pumps.
- Capillary tubing for squeeze bottles and drop-by-drop aerosols.

Lab report furnished with each batch

ACTION PLASTICS INC.
50 California Ave. • Paterson, N. J.

Equipment—Processes—Bulletins—

Directional Spray Button

Precision Valve Corp. has introduced a newly-developed aerosol spray button which has been designed to meet problems prevalent in the paint industry, but which the company says is applicable in every field. The new button incorporates an impressed arrow in a second color so that the direction of spray flow can be seen instantly. The impressing and coloring of the arrow is an integral part of the molding operation (patent applied for by Precision Valve Corporation) and can therefore be made available at practically no increase in cost over conventional buttons.

•

Insecticide Formulation Booklet

Formulations aimed at increasing effectiveness of household, garden and truck crop insecticides against resistant insects, are offered in a new free folder "House & Garden Sprays & Dusts," prepared by the Fairfield Chemicals Division of Food Machinery and Chemical Corp., New York. Especially prepared for the insecticide formulator and packager, the folder lists suggested formulations for dual purpose home and garden sprays, horticultural sprays, fungicide additives, and emulsifiable garden sprays and concentrates. Also included are model front and back package labels with accepted wordage for declaration of contents and directions for use.

Key to the effectiveness of the formulations listed in the folder is Pyrenone, a combination of pyrethrins and piperonyl butoxide. High rate of knockdown and kill, even with resistant insects, is reportedly achieved with this concentrate, which is virtually non-toxic and harmless to humans and warm-blood animals.

Copies of the folder can be obtained by writing directly to the company at 441 Lexington Ave., New York 17, New York.

•

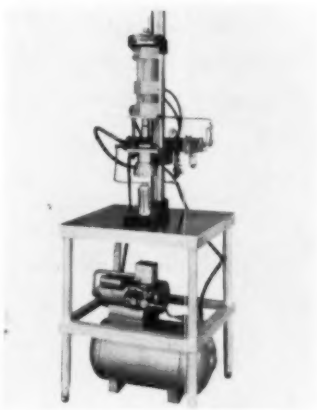
Clip-Type Overcap

J. L. Clark Manufacturing Co., Rockford, Ill., has developed a new type of overcap which features a clip that grips the valve collar of the aerosol container. It is currently being used on Helene Curtis "Spray Net."

The clip is formed and inserted in the process of manufacturing the cap. The new caps, of the large stacking variety, can be handled on existing capping equipment.

•

Vacuum Aerosol Crimper



A new semi-automatic machine for crimping aerosol cap and valve assemblies after a vacuum has been drawn has been introduced by John R. Nalbach Engineering Co., 6139 Ogden Ave., Chicago 50. The unit can be used for slow-speed production or in the laboratory. It reaches speeds of up to 30 containers per minute.

The crimping head is operated by dual air cylinders requiring a line pressure of 90 to 100 psi. Vacuum is drawn under the valve cap to within approximately 3"hg. of the vacuum tank pressure — prior to crimping.

The unit is said to be readily adjustable for different can heights and easily dismantled for cleaning.

•

WARF Issues New Booklet

The Wisconsin Alumni Research Foundation, Madison, Wis., has issued an 11-page illustrated booklet describing its facilities and services for the aerosol marketer and filler. The foundation's animal studies, toxicity tests, insecticide testing, food technology, and chemistry and microbiology laboratories are described and illustrated. Also included is a brief history of the founding and growth of the foundation. Copies of the booklet are available by writing directly to the foundation at P. O. Box 2217, Madison 1.

•

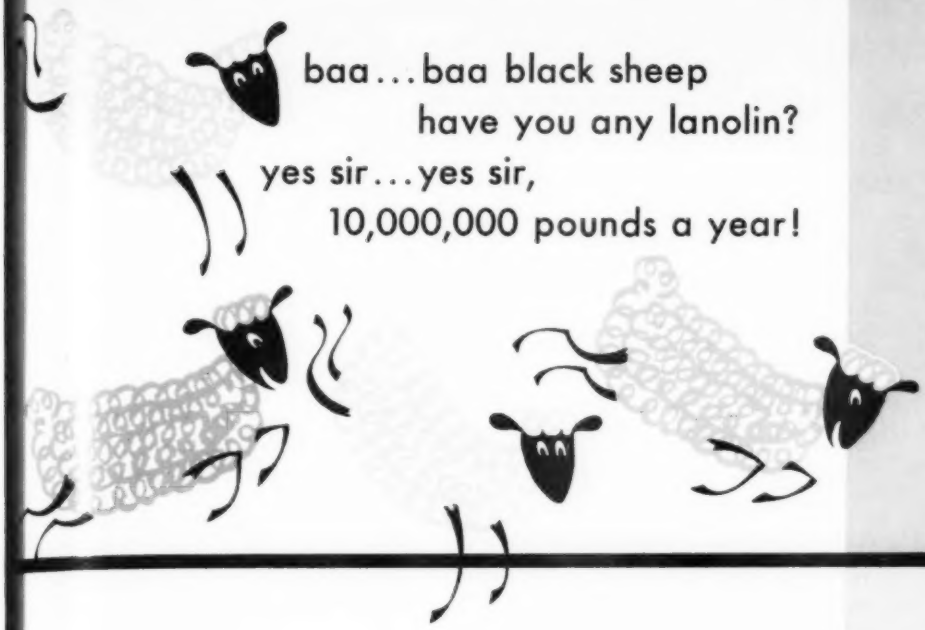
New Conveyor Bulletin

The A. B. Farquhar Division of The Oliver Corp., York, Pa., recently issued two new illustrated bulletins on its models 540 and 610 power belt conveyors. The first of these is a roller bed package handling conveyor engineered for application flexibility. It is available in various width and roller spacing combinations. The 610 is a slider belt conveyor said to be especially suited for assembly line work. Copies of the bulletins are available by writing to the marketing section of the company, department 160, York, Pa.

•

Essential Oils Booklet

"American Essential Oils," a listing of physical and chemical properties of essential oils produced domestically, has been issued by Magnus, Mabee & Reynard, Inc., 16 Desbrosses Street, New York 13. One feature of the 25-page booklet is a brief description of the manufacturing process used for each type of essential oil.



baa...baa black sheep
have you any lanolin?
yes sir...yes sir,
10,000,000 pounds a year!

SUPERFINE LANOLIN U.S.P.

The ultimate in high quality lanolin . . . ideal color and odor properties . . . the finest available for the cosmetic industry.

You can depend on Croda . . . with direct supply centers throughout the world, for your immediate source of supply of lanolin and lanolin derivatives.

Croda provides the ultimate in quality . . . suitable for the most exacting purposes in cosmetics and pharmaceuticals.

COSMETIC LANOLIN U.S.P.

High quality lanolin with excellent blending properties. Moderately priced . . . for use in pharmaceuticals and cosmetics.

Croda

★ New York
★ London, England
★ Verziers, Belgium
★ Milan, Italy

PHARMACEUTICAL LANOLIN U.S.P.

Fine quality lanolin . . . the best at the lowest possible price. Suitable for the most exacting purposes in pharmaceuticals.

CRODA, Inc. 15 E. 26th Street New York 10, N.Y. MU 3-3089

Designed & Executed by Alexander Strull Advertising, Inc., Hempstead, N. Y.

VCA Offers "Valvu" Boards

A three-dimensional "catalog," actual working models of metered and non-metered valve components and assemblies, has been prepared for prospective packagers and manufacturers of aerosol products by Valve Corp. of America, Bridgeport, manufacturers of aerosol valves and fitments.

Free to firms making requests on company letterhead, the "catalog" consists of two 11 x 14-inch "Valvu" view boards with mounted samples of valves, actuators, dip tubes, stainless steel inner containers and other aerosol components manufactured by VCA. Included are units for glass, plastic and metal containers; aluminum and tin-plated containers; and stainless steel, aluminum, tin-plated cans, glass and plastic containers for metered products.

Each unit is identified with VCA price list numbers, and space is provided for adding new VCA components. Additional information can be obtained by writing the company at 1722 Fairfield Ave., Bridgeport 1, Connecticut.

•

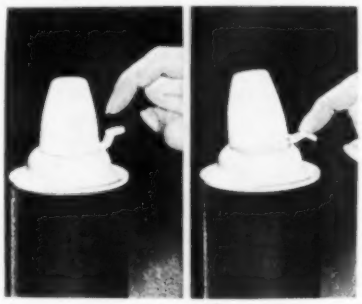
USDA Insecticide Handbook

The 1959 revision of Agriculture Handbook 120—"Insecticide Recommendations of the Entomology Research Division for the Control of Insects Attacking Crops and Livestock"— is currently being provided to extension agents and others who guide farmers' pest control efforts, the U. S. Department of Agriculture has announced. This handbook summarizes the Department's recommendations as of Jan. 1, of this year.

Included are a number of insecticides that represent marked advancement in pest control. These insecticides are either more effective in the control of insects and mites, less toxic to workers applying them, or leave less persistent residues and reduce the waiting period between last application and harvest. The contents have been modified to give more complete precautions for workers using insecticides, for persons handling treated plants, for protecting bees, fish and wildlife, for treating possible accidental poisoning, and to minimize residues on food and feed.

•

"Foolproof" Aerosol Cap



A new "foolproof" cap that prevents customer testing has been developed by the Super Whip Valve Co., 4101 N. Rockwell, Chicago 18. Called the "E Z Lift," the new cap can be taken off with slight pressure of the thumb. It is said to eliminate gas loss and valve blow-off caused by prying under the valve mounting cap, accidental discharge of gas and product caused by hitting the nozzle during cap removal, and damage to valve if container is dropped.

•

Surface Active Agent Catalogue

A new 24-page catalogue of surface active agents has been published by the Onyx Oil & Chemical Co., Jersey City 2, N. J. Each product is described by trade name, active ingredient, percent activity, physical state, general use, specific applications and properties.

The products are divided into three general classes; anionic, cationic and non-ionic. There is a two-page section explaining the chemistry of each of these groups. Copies of this catalogue are available upon request to the company.

Plastic Fabrication Method

A new type plastic bottle forming and filling line, called "All-Pac," has been introduced in the U. S. by Leedpak, Inc., 294 Fifth Ave., New York 1. The new unit is described as the first such installation that "delivers filled plastic bottles at costs competitive with, and in some instances lower than, equivalent sizes of metal or glass containers."

The "All-Pac" machine, which is protected by international patents, forms light wall plastic bottles from roll plastic sheetings in gauges up to .040; tests them for leakers (which it automatically rejects); fills them; seals or caps them; and finally trims the finished bottle from web and delivers it on a conveyor to the cartoning line. The forming process is said to permit the blowing of bottles or bottle-like containers of any shape.

The new process reportedly holds promise of overcoming one of the major weaknesses of plastic bottles, namely, the limited ability of most plastics to "hold" volatile oils and essences, moisture, etc. Since the new process bottles are formed from rolls, the plastic sheeting may be coated with low cost formulations to provide special resistant qualities required by the product to be packaged. Most conventional bottles are usually coated after they have been fabricated.

•

New Small-Size Coupling

Development of a new miniaturized coupling has been announced by Aeroquip Corp., Jackson, Mich. The "1010 Series" coupling is only 2½" long and weighs slightly over one-half ounce. Connection is by a simple bayonet-type lock and each half is self-sealing with Viton A "O" rings.

Coupling is said to be suitable for electronic cooling systems, test stand, filling and charging connections, pressure sensing and other general applications where lightweight and compactness are desired. Design has an operating temperature range of −65° to +375° F. with operating pressures to 1500 psi. Further information about the coupling in a bulletin AAI-10, is available from the company's advertising department.

SHAVING CREAMS

work up a sales lather in aerosol cans by CONTINENTAL

Solid success story: in four short years, aerosol shaves have hit the top of the shaving cream market (68 million cans in 1957 alone!) It was Continental, remember, who developed the low pressure aerosol can that started this phenomenal market on its runaway path. For your shaving cream, you can't do better than a Continental aerosol, superbly lithographed by Continental experts. Precision-made Continental aerosols are most economically priced. Take your pick from eight sizes and many different styles. You get fast delivery of all the aerosols you need from Continental's greatly expanded production facilities. Research and engineering services are available, plus introductions to valve suppliers and commercial fillers. For aerosols with solid sales power, call Continental today.

CONTINENTAL CAN COMPANY

Eastern Division: 100 East 42nd Street, New York 17
Central Division: 135 South La Salle Street, Chicago 3
Pacific Division: Russ Building, San Francisco 4
Canadian Division: 5595 Pare Street, Montreal, Que.

CONTINENTAL MAKES AEROSOLS FOR EVERY USE... IN THE WIDEST RANGE OF SIZES

PAINT | INSECTICIDES | SPRAY BANDAGES | FRAGRANCE | DEODORANT | HAIR SPRAY | SHOE POLISH | ANTISEPTIC

Two Marketers Introduce Plant Hormone Rooting Spray

GARDENERS who propagate their own plants from cuttings now can apply a hormone rooting preparation to the stock from a recently introduced push-button spray container that offers protection from cross-infection of cuttings. Unlike other older methods of hormone application, in which the cuttings are moistened and rolled in a hormone paste or powder or dipped in a liquid solution of the hormone, the aerosol version is said to permit almost sterile treatment of individual cuttings. This prevents spread of infections from one cutting to another because no two cuttings ever are exposed to a common hormone "bath."

The aerosol products contain enough hormone preparation to treat many dozen cuttings, and are clean and easy to use, and preserve the potency of the hormones during package storage. The spray eliminates the need for disinfecting cuttings prior to planting and is said by its manufacturers to help form strong roots in two to three weeks on most cuttings, and in four to six weeks on hardwoods.

The product is currently being marketed by two Eastern garden outlet marketers, Nott Manufacturing Co., Poughkeepsie, N. Y., and Plant Products Corp., Blue Point, L. I. Nott's product, called "Root-Rite" is available in hardware, garden and seed shops at about $2.49 per six-ounce container. Plant Products' version, "Stim-Root," is intended for professional use and is available though nursery dealers and florist supply houses. The latter comes in two sizes, six-ounce retailing at $2.50 and 12-ounce for $3.50. Both marketers are using "Freon" as their propellant.

Best results are obtained when the container is held about 18 to 20 inches from the cuttings, with the hormone being applied in short bursts. Marketers advise their customers that sprayed cuttings should be inserted immediately in propagating beds kept in a warm, shady place with plenty of daylight and ample, but not excessive, moisture until sufficient roots are formed to permit transplanting.

•

USDA Registers Insecticide

The Davison Chemical Division of W. R. Grace & Co., Baltimore, last month launched nationwide distribution of its "Dri-Die Insecticide 67," following approval by the USDA of permanent registration of the product label. Marketing of the radically different product will be mainly through pest control chemical distributors.

Approval was allowed on the killing and control of roaches, drywood termites, and animal fleas. The product is a chemically treated highly porous silica gel of extremely small—micron-sized particles. It is made up of 100% active ingredients, which, upon contact remove a portion of the waxy body surface of the insect. The moisture balance of the insect is destroyed, and it dies by dehydration.

DARASOL*

Pat. Pending

NEW

ultra-fast drying resinous coating that won't clog aerosol release valves

DARASOL is a versatile NEW solution suitable for either protective or decorative coatings. Protects against rust . . . provides waterproofing and fireproofing qualities . . . and its remarkably fast drying action makes this new Diamond development ideal for use in paints. It's nonflammable . . . has unusually low odor factor. Available in gallon, 5-gal and 55-gal drums. For further information and FREE 3-oz sample, write Diamond Alkali Company, 300 Union Commerce Bldg., Cleveland 14, O.

DARASOL is distributed by The Kerden Company, Cleveland, Ohio

Diamond Chemicals

The Seals Behind the Seal

The college seals reproduced here represent some of the alma maters of men and women at Aerosol Techniques, Inc.

ATi

AEROSOL TECHNIQUES

INCORPORATED

Exclusively private label manufacturer of Aerosol cosmetics, pharmaceuticals and chemical specialties.

MAIN OFFICE AND PLANT: 1730 State Street, Bridgeport 5, Connecticut
WESTERN DIVISION: 6423 Bandini Boulevard, Los Angeles 22, California

Flight
Imagination unhampered by tradition
ideas bold, original, and exclusive
All founded on 35 years of experience
Call in Fallon
Flight

Aerosols in Great Britain

(From Page 32)

in six-ounce dispensers, each retailing at 4/6. These products are packed in tinplate containers fitted with Precision valves and a very attractive overall plastic cover is used. According to announcements in the trade press, Mondart is sparing no pains to introduce "MAX" to the public. For instance, advertisements will appear on television every night for 14 weeks from the 4th May, with continuous press advertising for a similar period.

Proprietary Pressure Packages, Ltd. of Birmingham, is offering the new "Hero" range. So far this comprises an air-freshener and an insecticide retailing at 4/6d., an oven cleaner and a spot remover at 5/- and a medicated cold relief at 7/3. Here too resort is being made to television and national press advertising.

The examples quoted above, are just a brief indication of the virility with which the British pressure packaging industry is approaching the new marketing season.

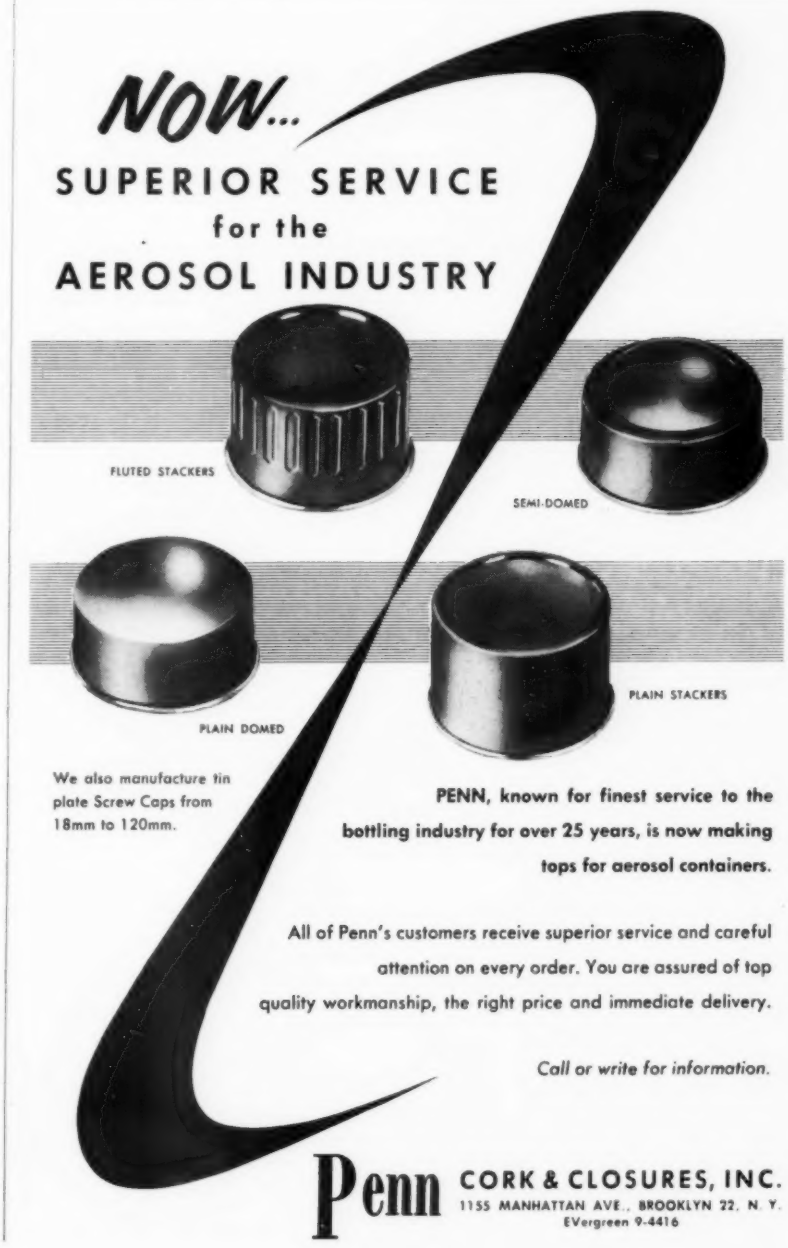
On Monday, March 16th, the second of a series of feature exhibitions, which are now being staged monthly, opened at the Packaging Centre, London. This exhibition, which will remain open until April 8th, is devoted entirely to the pressure packaging industry and, within the limited space available, the 16 participating exhibitors have put on an impressive display. The majority of exhibits are in the nature of wall panels which illustrate by means of samples, photographs and diagrams, the sphere of activity of the particular exhibitor. This display method is undoubtedly the most sensible one, when it is remembered that this educative display is to remain on view for three weeks. It is therefore very difficult and probably impossible to man it continously.

To overcome this possible defect, Swallowfield Aerosols, Ltd., a contract filler, ask visitors to pick up a telephone whereupon a recorded message explaining their activities is relayed to the listener. Polak & Schwarz (England) Ltd., who display a number of dispensers containing air fresheners, insecticides and toilet preparations for examination, have asked visitors to telephone named members of their staff for further queries. That firm displays the new aerosol technical book.

Possibly the most impressive and ambitious stand is that of Stafford Allen & Sons, Ltd., featuring three groups of products—perfumes, insecticides and flavors. In the latter section dispensers containing nitrogen pressurized spice sauce, chocolate syrup, coffee, salad dressing, lemon curd and piping jelly are on display, possibly the first display in Great Britain of pressurized food products.

The filling machines manufactured by Aerofill, Ltd., and the Metropole Group of Industries are also displayed.

In addition, a number of wall panels display a selection of successful products now marketed in Great Britain, the grouping being in accordance with usage, i.e. "In the Garage," "In the Kitchen," "In Industry," "In Medicine," 'On the Farm," "In the Bathroom," "In the House."


NOW...
SUPERIOR SERVICE
for the
AEROSOL INDUSTRY
FLUTED STACKERS
SEMI-DOMED
PLAIN DOMED
PLAIN STACKERS
We also manufacture tin plate Screw Caps from 18mm to 120mm.
PENN, known for finest service to the bottling industry for over 25 years, is now making tops for aerosol containers.
All of Penn's customers receive superior service and careful attention on every order. You are assured of top quality workmanship, the right price and immediate delivery.
Call or write for information.
Penn
CORK & CLOSURES, INC.
1155 MANHATTAN AVE., BROOKLYN 22, N. Y.
EVergreen 9-4416

The following firms take part in this display, in addition to the organizations already referred to above:

Aerosol Packaging Co., Ltd.
W. J. Bush & Co., Ltd.
John Dale, Ltd.
Day, Son & Hewitt, Ltd.
Givaudan & Co., Ltd.
Imperial Chemical Industries, Ltd.
International Bottle Co., Ltd.
The Metal Box Co., Ltd.
Midland Aerosols, Ltd.
Pressure Aerosols Filling Co., Ltd.
Chas. Zimmerman & Co., Ltd.

The Pressure Packaging Discussion Group of the Institute of Packaging at its January 1959 meeting, was treated to two very interesting thought-provoking talks on "Quality Control." The first speaker was R. M. Mumford of Cooper, McDougall & Robertson, Ltd. (U. K. Division) Berkhamsted, Herts, and the second speaker was A. F. Cowan of The Metal Box Co., Ltd.

At an earlier meeting, Dr. W. Mitchell of Stafford Allen & Sons, Ltd., stirred the audience into the liveliest discussion which ever occurred since the formation of this group, when he stated that the spray from a hand operated piston dispenser was more efficient than the pressurized spray. The mood of the audience left little doubt of its disagreement with Dr. Mitchell. Dr. Mitchell is known in Great Britain as an authority on "Bucarpolate," the well known synergist.

The most recent talk was given by Dr. Baker and dealt with "Pharmaceutical Products." He spoke at some length on possible methods of sterilization, including the use of radiation.

Possibly for the first time, a subject for a dissertation for the B. Pharm. degree of London University (Part II —Pharmaceutics) is entitled "Aerosol Formulation."

Amongst the ethical medical preparations on the market is *NOBECUTANE* Spray by Evans Medical Supplies, Ltd.

"Nobecutane" is a sterile, elastic, transparent surgical dressing. It consists of an acrylic resin dissolved in a mixture of acetic esters. On application to a dry surface the solvents quickly evaporate leaving an adherent, transparent dressing which allows normal skin respiration to continue, thus avoiding skin maceration due to trapped moisture. As a dressing for the majority of surgical wounds, "Nobecutane" can completely and efficiently replace conventional dressings.

The manufacturers make the following special points about this package:

1. A patient with a "Nobecutane" treated wound can be bathed or washed without in any way interfering with the wound or affecting the dressing.

2. Application of "Nobecutane" to chest wounds facilitates chest movement, and does not hinder examination by auscultation and percussion, nor "fog" radiographs.

3. "Nobecutane" is of value for the covering of all surgical wounds, but is particularly valuable as a post-operative for hare lips, for the protection of the skin surrounding colostomy or ileostomy wounds, and for preventing contamination of abdominal or perineal wounds by urine or faeces. In pediatric surgery, deliberate removal of dressings or dislodgement due to extreme restlessness of infants, cannot readily occur when "Nobecutane" is used.★

•

DuPont Reassigns Two

Kenneth E. Dallas and Donald L. Kjelleren have been assigned to the Syracuse, N. Y., and New York-New England territories, respectively, as technical sales representatives for the DuPont Company's "Freon" Products Division.

Mr. Dallas has been sales correspondent in the Eastern district office of the "Freon" Division in New York City. He attended New York University and the Academy of Advanced Traffic in New York City.

Mr. Kjelleren obtained his bachelor of science degree in chemistry from Norwich University in 1954 and his master's degree in chemistry from the University of Vermont in 1956 before joining DuPont early in 1957 as a chemist at its "Freon" Products Laboratory.

BUILDER'S PRODUCTS

AEROSOL CAN DISPOSAL and

PRODUCT RECLAIMING DEVICE

Prevent accidents due to incinerator Explosions

Fits all size Aerosol Cans to be disposed of or for reclaiming products, by piercing the valve cap or bottom. The product then flows into a pail to be salvaged.

BUILDERS PRODUCTS 108-110 WOOSTER ST., N. Y. 12, N. Y.

spray your way

to new profits with

ISOTRON®

Aerosol lotions put something new under the sun—a no-muss way to a no-burn tan. And many similar products . . . including hand lotions, hair cosmetics, colognes, shampoos and depilatories . . . gain instant sales appeal by taking advantage of aerosol packaging with modern propellents like ISOTRON.

Have you investigated your product's aerosol opportunities? Pennsalt's ISOTRON Laboratory helps you with *personalized* aid in adapting your formulation, choosing the correct container, valve and propellent, and testing performance. And expert contract fillers, like those listed here, offer valuable services that simplify production.

Now's the time for a *confidential* discussion of *your* new aerosol. Write or call Pennsalt today.

Pennsalt Chemicals
ESTABLISHED 1850

ISOTRON Department 960
PENNSALT CHEMICALS CORPORATION
Three Penn Center, Philadelphia 2, Pa.

ISOTRON—The Key to Modern Living

For Expert Production of Your Cosmetic Aerosol, Count on . . .

Aeriform Products
Dearborn, Mich.
Aero-Chem Laboratories Inc.
Bridgeport, Conn.
Aero Fil Co.
Ranson, W. Va.
Aeropak, Inc.
Chicago, Ill.
Aerosol Corp. of the South
Arlington, Tenn.
Aerosol Industries
Div. of Zenith Drug Inc.
Newark, N. J.
Allied Professional Associates, Ltd.
Buffalo, N. Y.
A-M-R Chemical Company, Inc.
Brooklyn, N. Y.; Los Angeles, Calif.
Arlenge Laboratories
New York, N. Y.
Armstrong Laboratories
Boston, N.Y.C., Phila.
Associated Brands, Inc.
Brooklyn, N. Y.
G. Barr & Co.
Chicago & New York
Capitol Packaging Co.
Forest Park (Chicago), Ill.
Chase Products Co.
Broadview, Ill.
Claire Mfg. Co.
Ft. Lauderdale, Fla.
Continental Filling Corporation
Danville, Ill. & Hobart, Ind.
Eveready Pressurized Products
Cleveland, Ohio
Fluid Chemical Company, Inc.
Newark, N. J.
Gard Industries, Inc.
Northfield, Ill.
Jet-Aer Corporation
Paterson, N. J.
La Maur, Inc.
Minneapolis, Minn.
Larson Laboratories Inc.
Erie, Pa.
Mercy Laboratories Inc.
Chicago, Ill.
Midwest Consultants, Inc.
St. Louis, Mo.
National Chemical Laboratories, Inc.
West Palm Beach, Fla.
National Spray Can Filling Corp.
Brooklyn, N. Y.
New England Pharmacal Co.
Dearborn, Mich.
Orb Industries
Springfield, Penna.
Peterson Filling & Packaging Co.
Danville, Ill.
Powr-Pak, Inc.
Bridgeport, Conn.
Professional Products Laboratories
Baltimore, Md.
Puritan Distributors Co.
Boston, Mass.
Scranton Aerosol Packaging Div. of the Scranton Corporation
Scranton, Pa.
Southeastern Packaging Co.
St. Petersburg, Fla.
John C. Stalfort & Sons
Baltimore, Md.
Strouse, Inc.
Norristown, Pa.
Thomasson of Pa. Inc.
Norristown, Pa.
Wellston Aerosol Mfg. Co.
Wellston, Ohio

Gathering Place of Bridgeport's Aerosol Industry

What Toots Shor's is to the sporting world and Sardi's to the people of the theatre, so Phil and Mary's, a Bridgeport luncheonette, is to the people of the Bridgeport aerosol industry. Its location, close to most of the city's aerosol plants, makes the place a favorite meeting ground for people from every phase of the industry—company presidents, technicians, chemists, sales representatives, engineers, and girls from the production line. People in the industry from all over the world have probably discussed products, packaging and prices over Phil and Mary's counter. The group shown here is typical of that which can be found here any afternoon. In the center and running clockwise around the counter are: Roy Ferry and Lorraine Barcomb, Valve Corp. of America; Edith Long and John Sullivan, Aero-Chem Laboratories; Carl Nowitz and John Vallturo, Powr Pak-Conn Chem; Philip Kleppe, Aerosol Techniques, Inc.; Joe Zamatta, Powr Pak-Conn Chem; Cornell Corrian, ATI; Milt Fawks, Powr Pak-Conn Chem; Ed Knudsen, Ralph Minervino, Metal Fabrications; Dr. Peter Sgaramella, ATI; and Fred Pickering, VCA. George Macura, VCA, stepped into a phone booth just a few minutes earlier and thus missed being immortalized in this group photo.

Dresden Enters Consulting Field

Mark K. Dresden, formerly president of A. H. Wirz, Chester, Pa. manufacturer of aerosol containers, has established offices as a packaging and general business consultant at Providence Road, Media, Pa. Mr. Dresden retired as president of Wirz last year after five years as president, and a total of 25 years in other packaging administrative assignments.

He will specialize in development of new packages, improvement of existing packaging, general "trouble shooting," and the establishment of quality control and the solution of other special packaging problems.

•

Frank Appoints Biersach

Herbert Biersach has just been named to manage the new Twin City office of the Walter Frank Organization of Hillside, Ill.,

Herbert Biersach

package designers and sales representatives.

Offices have been opened in the Griggs-Midway Building at 1821 University Avenue, St. Paul 4 W, Minnesota. Mr. Biersach is a 1951 graduate of Minnesota University.

In addition to its package designing facilities, The Frank Organization represents such package component firms as Brockway Glass Co., Sterling Seal, Standard Collapsible Tube, Standard Cap & Molding, Multicraft, and others.

•

Onyx Oil Names Freeman

Robert Freeman has been appointed Sales Representative for Onyx Oil & Chemical Co. In his new position, he will cover the Metropolitan-New York-New Jersey areas, with headquarters at the company's main office in Jersey City, N. J.

Mr. Freeman joined Onyx in 1956 as a member of the customer service staff. Prior to that, he was an application chemist in the research laboratories of United Merchants and Manufacturers. An active member of the AATCC, Mr. Freeman holds a degree in textile chemistry from Lowell Technological Institute, from which he was graduated in 1951.

Your future may be right on a lady's lips, if your lipstick is right for her lips. Good scents from Norda will help make it right, when a lady comes in to buy beauty.

Norda can help give your perfumed products the excitement of excellence. It is a Norda tradition. Research and development are making the notable Norda skills even more deserving of confidence in quality that long experience has earned for Norda.

Norda makes good scents

Norda®

601 W. 26 St., New York 1, N. Y.

CHICAGO · LOS ANGELES · SAN FRANCISCO · TORONTO
MONTREAL · HAVANA · LONDON · PARIS · GRASSE · MEXICO CITY

THE WORLD OVER

KLM

ROYAL DUTCH AIRLINES

"The time just flew!"

You've crossed the ocean – and it's hard to believe the trip is over so soon. But it's easy enough to understand once you've flown KLM. There's such solid comfort. And such a friendly climate aboard. What's more, the cuisine is superb. Why, even the simplest fare becomes a delicacy in the artful hands of a KLM master chef.

These are just a few reasons why people who travel often by air take the Royal Dutch route – to all points of the globe. Next time you plan a long air trip, why not shorten the miles? Let a KLM flight crew give you all the attention in the world. It makes such a royal difference. See your Travel Agent or call your nearest KLM office.

KLM Royal Dutch Airlines, 430 Park Avenue, New York 22, N. Y.

de Hoyos Elected Mayor

Luis de Hoyos, vice-president and general manager of Synfleur Scientific Laboratories, located in Monticello, N. Y., was elected mayor of the city of Monticello on March 17th.

The position seems to "run in the family," since Mr. de Hoyos' father, Luis de Hoyos, Sr., served as mayor of the town for 14 years until his death in 1951. The senior de Hoyos was also general manager of Synfleur.

Synfleur Scientific Laboratories, manufacturers of aromatic and flavoring materials, maintains branch offices in New York, Atlanta, Detroit, Chicago, Mexico City, Havana, Rio de Janiero and Buenos Aires.

•

Stamberg Rejoins Matchabelli

Prince Matchabelli, Inc., New York has announced the appointment of Frank L. Stamberg as manager of brand operations, including "Polyderm" cosmetics, "Simonetta" perfumes, and "Black Watch" grooming aids for men, as well as new products and market research. Mr. Stamberg was formerly assistant to the president of Vick Chemical Co. and prior to that had been associated with Prince Matchabelli for four years.

•

ICI Renumbers Propellants

Imperial Chemical Industries, Ltd., London, last month announced a decision to re-code its "Arcton" range of refrigerants and propellants. Manufacturers of chlorofluorohydrocarbons use a variety of numbering systems to distinguish grades of different chemical composition, a fact which has caused confusion. I.C.I.'s new decision is expected to simplify the situation as the system to be adopted by the company is now widely used in the U.S.A. and elsewhere.

As from May, 1959, "Arcton" grades will be re-numbered as follows:

"Arcton"	9	to be "Arcton"	11
"Arcton"	6	to be "Arcton"	12
"Arcton"	3	to be "Arcton"	13
"Arcton"	7	to be "Arcton"	21
"Arcton"	4	to be "Arcton"	22
"Arcton"	63	to be "Arcton"	113
"Arcton"	33	to be "Arcton"	114
"Arcton"	50	to be "Arcton"	133a

Rexall Hints Aerosol Plans

Rexall Drug Co., Los Angeles, a leading aerosol marketer, last month hinted about three new aerosol products in advanced stage of development. The three are a shampoo, facial cleanser, and hand lotion, the latter of which will be marketed in a coated glass bottle with a nitrogen metering valve.

This disclosure was made in Rexall's annual financial report, which was issued last month.

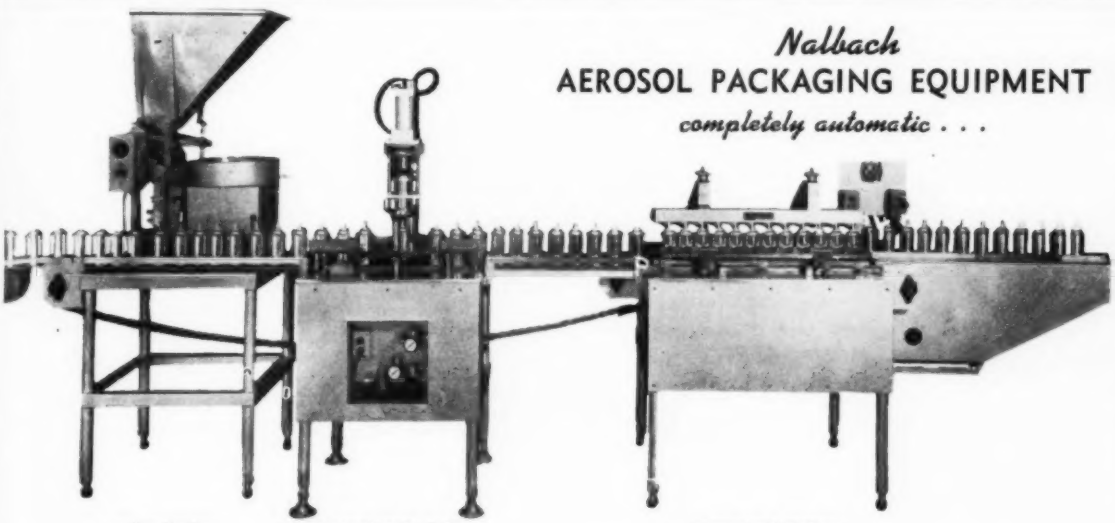
•

Fleuroma Appoints Perfumer

Fleuroma, Inc., New York, has announced that Francis Lions, recently arrived from France, has joined the company in the capacity of perfumer.

A native of Grasse, France, he is the son of Mr. Arthur Lions, who was very well known in the Perfume industry. For 20 years, Mr. Lions was connected with two of the leading international essential oil and perfume compound companies and later, served as a consultant to the French perfume industry.

Nalbach
AEROSOL PACKAGING EQUIPMENT
completely automatic . . .



valve feeder — crimper and code dater (Mod. 1-HAC) — Gasser and shaker (Mod. 12G.S.)

THE CRIMPER:
- Crimps and code dates simultaneously
- Features a cap-and-valve centering device
- Stops automatically with overloads and jam-ups

THE GASSER AND SHAKER:
- Gasses 12 containers simultaneously
- Adjustable to line speed, shake, time, and height changes.

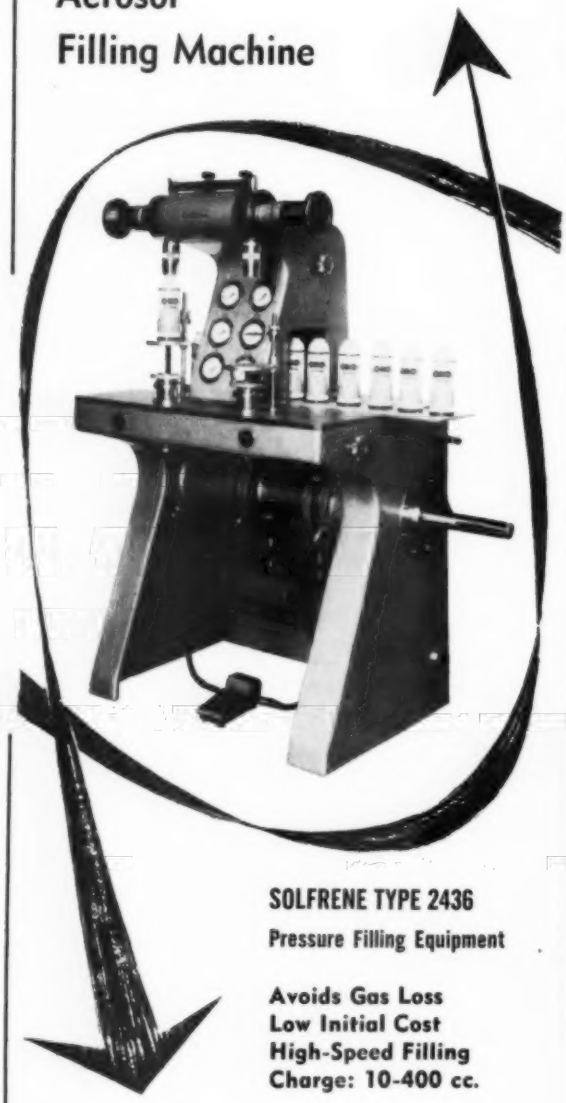
These are but a few of the excellent features engineered into this equipment. Available as a unit or as separate components.

write today for detailed information

JOHN R. NALBACH ENGINEERING CO.
6139 OGDEN AVENUE CHICAGO 50, ILL.

SOLFRENE

Aerosol
Filling Machine



SOLFRENE TYPE 2436
Pressure Filling Equipment

Avoids Gas Loss
Low Initial Cost
High-Speed Filling
Charge: 10-400 cc.

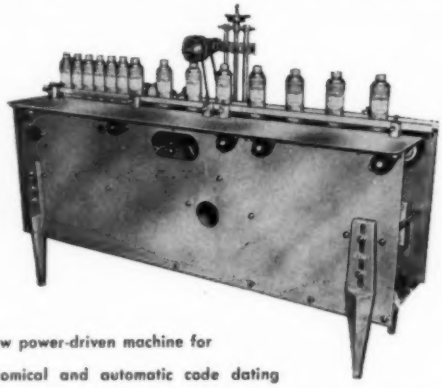
SOLFRENE S. p. A.

VIA MATTEOTTI N 12
CORSICO (MILANO), ITALY

Manufacturer of Aerosol Filling Machinery
for any Type Application

Aerosol Container

CODE DATING MACHINE



a new power-driven machine for economical and automatic code dating the concave bottoms of pressurized cans or flat bottoms of other round containers with work table area. Will mark top, bottom, or both at the same time.

Send details on your specific marking problems.
Literature available on all types of applications.

Kiwi® Coders Corporation

DEPT. AA 4027 N. KEDZIE AVE. CHICAGO 18, ILL.

---

a new dimension in custom packaging

SPEED
SERVICE

STANDARDS MAINTAINED • FORMULAS PROTECTED • QUALITY AEROSOLS

SAFETY
STABILITY

PRIVATE LABEL and CONTRACT

AEROSOL and BULK PACKAGING

- production runs
- sample runs
- package design
- market analysis, research
- merchandising assistance
- product formulations

OVER 100 TESTED FORMULAS ON HAND

pace incorporated

address all correspondence to Dept. A-39

PACE, Inc. P.O. Box 206 Wilmington 99, Del.

Colgate Buys Wildroot

The Colgate-Palmolive Co., New York, has announced completion of negotiations for the purchase of the Wildroot Co., Buffalo, N. Y. The formal signing took place in Buffalo on Wednesday, February 25th.

Wildroot will operate as a subsidiary of Colgate-Palmolive, and manufacture of the Wildroot products will be continued at its plant in Buffalo. However, marketing will be taken over by the Toilet Articles Division of Colgate-Palmolive Company.

C. Guy Grace, vice-president and general manager of Colgate-Palmolive's Toilet Articles Division, was elected president of Wildroot.

Other new officers of Wildroot are: Robert E. Hilbrant, vice-president and Hugh Jewett, vice-president and secretary. Both are Colgate vice-presidents, and Mr. Jewett is also secretary of Colgate-Palmolive. Edward J. Pempsell, vice-president and comptroller under the previous management, was elected treasurer.

Packaging Show

(From Page 26)

MONROE-DANFORD AND CO., Weehawken, N. J., (Booth 1067). Will exhibit a new capless aerosol container. Personnel: R. H. Hoonhout, M. D. Smart, M. D. Smart, D. M. Shaw.

MRM CO., INC., Brooklyn, N. Y., (Booth 211). Will show new labeling machine and new liquid filler. Personnel: H. D. Manas, R. Mishkin, R. J. Dealy, F. Rossetti, R. Manas.

OHIO CHEMICAL & SURGICAL EQUIPMENT CO., A DIVISION OF AIR REDUCTION CO., Madison, Wis., (Booth 478-80). Personnel: R. C. Webster, J. Henin, H. W. Beck.

OWENS-ILLINOIS GLASS CO., P. O. Box 1035, Toledo 1, Ohio., (Booth 614-22).

THE PFAUDLER CO., A Division of Pfaudler Permutit Inc., Rochester, N. Y., (Booth 515). Personnel: W. Pheteplace, P. Barta, K. Lambert, H. Taylor, F. B. Morris, A. Zillner.

U. S. BOTTLERS MACHINERY CO., Chicago, Ill., (Booth 971).

U. S. INDUSTRIAL CHEMICALS CO., DIV. OF NATIONAL DISTILLERS PRODUCTS CORP., New York, (Booth 1133-35). Personnel: S. F. Arnoult, T. A. Bowlin, T. E. Fritscher, Philip Gisser, J. H. Hallowell, E. F. Hoffmann, Ralph Knight, John Lachman, Vincent McCarthy, John Moffett, John Murray, George O'Brine, W. J. O'Keefe, William Radar, George Stanton, C. A. Wittman, Ben DeYoung, H. Wilson, Richard Phelps, A. Hutchings, D. Pugh, W. McDonald.★

Food Additives

(From Page 30)

as a practical method of determining the migratory characteristics of plastic packaging components. In general, he pointed out, most highly refined methods of analysis will be required to sufficiently pin down the amount of migration possible into the product under normal and accelerated conditions.

For plastics (a leading material in valve actuator and dip tube materials) Mr. Ramsey indicated that, in addition to specific details about usage (types or kinds of foods, maximum temperature and time of storage and cooking, minimum size of pack-

Memo to Purchasing

How many salesmen, researchers, chemists, engineers, etc. in our firm should be getting individual copies of Aerosol Age?

Let's inquire about a group subscription for everyone in the company.

CIRCULATION DEPARTMENT
AEROSOL AGE
P.O. Box 31, Caldwell, N.J.

COVER CAPS

Many Shapes and Different Colors

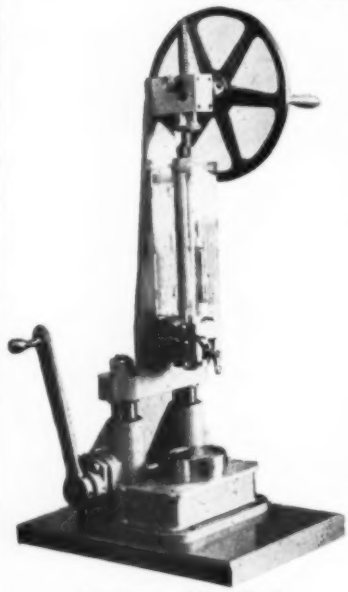
Metal Screw-Caps
20 to 89 mm.

Quick Delivery
Quality

EASTERN
CAP & CLOSURE CO.
725 North Haven St.
Baltimore 5, MD.

DEVELOPED FOR THE CONSULTING LABORATORY, THIS APPARATUS IS THE ULTIMATE IN FUNCTIONAL DESIGN AND PERFORMANCE

Our apparatus division has been set up to make all items available to the industry. Prices and descriptive literature on request.



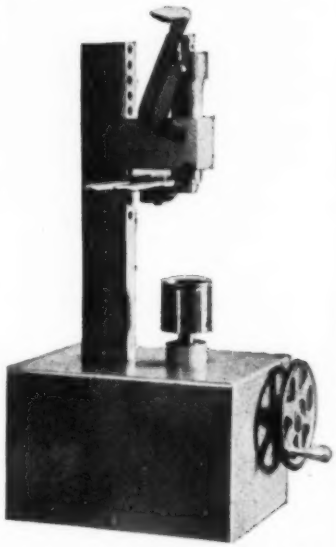
Foresman Liquefied Gas Manipulator

APPARATUS AVAILABLE

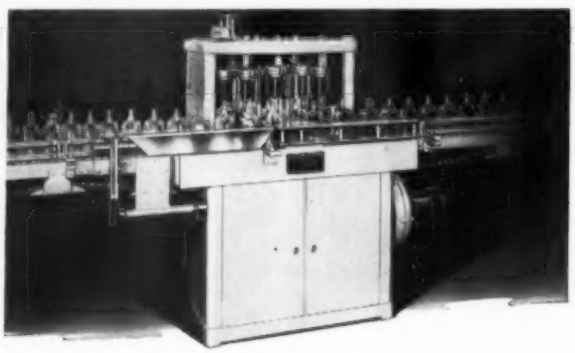
Cont. Filling Corp. Clinch Torque Meter

Liquefied Gas Manipulator w/Universal Head
Propellant Manifold for Manipulator
Hand Operated Vial Capper
Change Parts for Vial Capper
One inch opening Can Closing Press
Hydrostatic Test Units
Karl Fischer Pressure Titration Cells
Dead Stop Indicator for Karl Fischer Titrameter
Density Units
High Pressure Test Bombs
Can Sampling Units — Piercing or Valve Actuating
Pressure Gauging Unit — Pressure Balance or Water Filled
Test Ovens — Standard or Custom Built
Instantaneous Chiller Units—Mechanically Refrigerated
Electric Hot Water Test Bath
Hot Water Bath Transfer Baskets Safety Top
Tank Racks
Table Tank Rack Combinations
Safety Screen Tubes for Glass Pressure Tubes
Plastic Protective Screens
Gloves and Masks

Apparatus Division
ROBERT A. FORESMAN, JR.
(Aerosol Consultant)
1690 Margaret Street
Philadelphia 24, Pa.



Foresman Hand Operated Vial Capper



Safeguard the Operation of Aerosol Valves

SANITAIR
AUTOMATIC
AIR CLEANER
Used by the leaders in aerosol packaging

AIR CLEANING CONTAINERS is your most worthwhile consideration. *Positive* removal of any speck of foreign matter is vital to the operation of each valve. Air cleaning also safeguards the quality of your product.

The Sanitair Automatic Air Cleaner assures positive cleaning action at all speeds. Containers are completely inverted *before, during* and *after* the air tubes enter. Naturally, no foreign matter can remain in an open inverted container after it has been blasted with compressed air. Write today for the "Sanitair Bulletin."

U. S. BOTTLERS MACHINERY CO.
4007 N. Rockwell St., Chicago 18, Illinois
Offices in Principal Cities

New High-speed, Conveyor-line AEROSOL CODE IMPRINTER

- Quickly adjustable for different sizes without use of change parts
- Does not require cutting of line . . . no dead plates needed
- Automatic NO-JAM watchman included with machine
- Fits in minimum space—needs only 30"
- Imprints up to 600 cans per minute
- Gives excellent results on flat or recessed concave surfaces
- Simplified 2-roll fast-dry flexographic inking system holds enough ink for round-the-clock operation
- Install it yourself in a few hours

Write today for details on "TB AEROSOL CODER"

First and foremost in automatic production-line CODING, MARKING and IMPRINTING machines

Gottscho®

GOTTSCHO Dept. X
HILLSIDE 5, N. J.

In Canada: Richardson Agencies, Ltd. • Toronto & Montreal

age—including weight of product) the FDA will need to know:

1. Complete composition, including basic resin polymers, copolymers, and monomers; colors, fillers, and catalysts.
2. Analysis to demonstrate reproduceability of plastic.
3. Formula showing polymeric structure.
4. Molecular weight distribution of polymer.
5. Possible variations in manufacturing process to show possible side reactions.
6. Complete composition of all components—an important factor to show extractability characteristics.
7. Extractability to show probable degree of transfer under conditions of proposed usage.

Dr. Arnold J. Lehman, the next speaker, declared that most basic resins used in plastics manufacture have proven harmless to test animals in extensive feeding tests. However, he said, a number of plasticizers and stabilizers *are* leachable and therefore subject to the new Food Amendment.

Dr. Lehman cautioned against submitting resins, plasticizers, etc. by number or other trade description when petitioning under the amendment.

Among the essential "don'ts" in submitting a plastic for approval, Dr. Lehman listed:

"Don't inform us that a plasticizer is 95% pure, without specifying the other 5%.

"Don't assume that if resin A is safe and that resin B is safe, they will be safe in combination.

"Don't overlook stabilizers, especially if they may be used for other purposes in the same package.

"Don't overlook inks and pigments as possible sources of trouble. If they migrate at all, they are not FDA approved.

"Do not ignore antioxidants and emulsifiers.

"Do not believe in rumors about whether or not certain materials have or have not been approved. Either check with the *Federal Register* or with the FDA."

(New York SCC Photo)

Dr. Arnold J. Lehman

Dr. Foulger declared that the amendment will point up the need for fine methods of detecting small quantities of material. A good example of the shortcomings of analytical chemistry lies in determining product toxicity, he said.

"The LD_{50}, for instance, means little in respect to true toxicity of the material. We need to know far more about its effect on specific organs of the human body, its effect on specific areas of the body, and even on enzyme systems within the individual cells.

"The new amendment will place the burden on us to

1. Develop more adequate analytical techniques.
2. Develop new techniques or new container materials, or
3. Turn our energies to packaging something *other* than foods."

In a question-and-answer period after the presentation of the formal papers, Mr. Ramsey declared that the burden of obtaining clearance under the new amendment would fall mainly on the fabricator and the end user (which, in the case of aerosols, would be the marketer). He said it would behoove the supplier of the raw material to make available as much chemical and physical data as possible to help the fabricator and end user determine the migration characteristics of the material or component.★

Pressurized Food Check List

(From Page 28)

bb. Ease of removal for cleaning by housewife and ease of reinstallment after cleaning
cc. Adaptability of actuator for use with other products

III. CONTAINER REQUIREMENTS

A. Effect of formulation on Container Components
Test pack determinations for obtaining storage data at various predetermined temperatures and storage times at predetermined positions. Test packs should be conducted for all products prior to test marketing so as to determine container and product shelf life, including the following factors:
1. Effect of internal enamel system and/or plain tin plate
2. Effect on side seam structures at higher storage temperatures
3. Effect of product on a drawn dome and seamed areas of dome
4. Effect of product on external enamel systems and lithography

B. Effect of formulation on valve and actuator components
1. Degree of corrosion on valve cup (internal and external) and protection required
2. Effect on valve with intermittent application
3. Effect on actuator with intermittent application
4. Effect of storage period on delivery rate
5. Determination of gas loss in terms of weight (grams) during storage period on pre-weighed containers
6. Effect of storage on spray pattern

C. Effect of container and storage temperatures and time on product formulation
1. Changes in pressure characteristics of product plus compressed propellant
2. Alterations in product color
3. Alterations in products pH
4. Alterations in product flavor, pick up of objectionable tin off-flavors, and other deleterious changes
5. Effect on product overrun in foam products
6. Effect on product stability and viscosity
7. Precipitation of solids during storage
8. Possible crystallization of sugars in stream type actuators
9. Product retention

D. Possible Toxicity Considerations of valve or container components
1. Feasibility of use of release agents or lubrication systems

IV. BACTERIOLOGICAL REQUIREMENTS VERSUS PRODUCT FORMULATION

A. Factors of Product Composition related to bacteriological stability of product
1. pH
2. Moisture
3. Salt content
4. Sugar content
5. Total solids

B. Microbiological Flora normally associated with product
1. Thermal death time characteristics

C. Method of preservation required to insure against bacterial contamination, assuming a normal bacterial load
1. Fill temperature
2. Storage temperatures at which the product will be handled and merchandised
3. Length or terms of process required to insure adequate bacteriological shelf-life

D. Method and position of gassing operation in terms of possible recontamination of heat-treated product
1. Gassing of product prior to cooling operation
   a. Pressure-temperature characteristics of propellant
2. Gassing of product cooled to, or filled at, room temperature
   a. Sterilization of gassing heads and valve stems prior to gassing operation

E. Use of asceptic filling techniques

V. COMPLETED PRODUCTS USE TEST

A. Effectiveness of product application, based on comparison of pressurized product with a related product currently on the market either in the pressurized form or in a conventional package

B. Development of instructions and label declarations (directions and mandatory precautions)

C. Development of carton according to specifications of I.C.C. Regulations

D. Development of overcap to give protection to product on shelf

E. Ease of operation

F. Absence of spillage and/or drip from actuator

G. Possible adverse effect on materials and implements in the kitchen

VI. REGULATORY CONSIDERATIONS

A. Food and Drug Administration—Federal Food, Drug and Cosmetic Act

B. Interstate Commerce Commission (Freight Tariff No. 11)

C. Federal Trade Commission

D. Department of Agriculture

E. Post Office Department

F. Chemical Specialties Manufacturers Association

G. State and local regulatory agencies

NOW... all the solids formulated in a single stick for loading

SNOW

you just drop it into your aerosol container before you add your propellant and valve.

Licensed under Patent 2,764,454

- Gives you an amazingly simple production.
- Gives you important savings in costs.
- Assures precision cold or pressure filling.
- No dust or boil-over. No mixing of powders.
- Standard colors are WHITE, RED, and BLUE. For special colors, send sample for matching.

Write for Information and Samples to

BALTIC CHEMICAL
115-119 Fourth Ave., Brooklyn 17, N. Y.
MEvins 8-6401

Now Available

AGENCIES AND REGULATIONS
of Interest to
THE AEROSOL INDUSTRY

A complete listing of Federal, State, and local governmental agencies and their regulations governing aerosol shipment, packaging, and sale.

119 pages, $10.

Chemical Specialties Mfrs. Assn.
50 E. 41st St. New York 17, N. Y.

PACKERS

The leading custom and contract fillers operating in your area are listed on the following pages.

MIDWEST

EVEREADY
for
AEROSOLS

complete private brand packaging

EVEREADY PRESSURIZED PRODUCTS, INC.
1101 BELT LINE ST. • CLEVELAND 9, OHIO

Symbol of Experience in Aerosol Development & Packaging

for Aerosol "Know-How" Call

CONTINENTAL FILLING CORPORATION
123 N. Hazel • Danville, Illinois

NOW . . . look to
PRODUCTS PACKAGING, INC.
for Custom Aerosol Filling

Economies formerly available only to mass marketers are now yours! 24 years of custom packaging leadership now available to aerosol marketers.

PRODUCTS PACKAGING, INC.
Service is our product
Box 1076, Station "A", Cleveland 2, Ohio
Phone: WOodbine 1-8800

MIDWEST

PETERSON
FILLING & PACKAGING CO.

•

Contract Aerosol and Liquid Filling

PHONE: 1400
HEGELER LANE
DANVILLE, ILL.

GARD

Product Development • Cold or Pressure Filling • Short and Long Runs • Warehousing • Marketing • Merchandising

A COMPLETE AEROSOL SERVICE

FOR FOOD, DRUGS, PAINTS AND CHEMICAL SPECIALTIES

GARD now offers the most complete, most modern filling facilities in the industry for all aerosols from food to paint. Minimum production runs—as low as 1,000 cans to 1,000,000 and up! Air-conditioned, humidity controlled throughout.

GARD INDUSTRIES, INC.
Northfield, Illinois

---

complete plants to serve you!

G. BARR & COMPANY
PRIVATE LABEL AEROSOLS

Enjoy the advantage of G. Barr & Company multiple plant operation and packaging know-how. Unsurpassed research, production and shipping facilities. No finer service available. Contact our nearest plant.

CHICAGO
3601 S. Racine
YArds 7-1700

NEW YORK
4747 Bronx Blvd.
FAirbanks 5-7870

MIDWEST

Aerosol Packaging
Specializing in
AEROSOL PAINTS

Enamels - Lacquers
Wrinkle and Hammertone Finish
Custom Filling
or
Private Label
Complete Aerosol and Paint
Laboratory Facilities

Cleveland Aerosol Packaging Corp.
9801 HARVARD AVE., CLEVELAND 5, O.

CONTRACT AEROSOL & L.P.G. FILLING

I-K-I QUALITY
I-K-I SERVICE

Small quantities accepted. Prompt service with ALL orders.

I-K-I MANUFACTURING COMPANY, INC.
Phone 144
EDGERTON, WISCONSIN

AEROSOL PACKAGING
to fit
YOUR PRODUCT

• No minimum run required and no maximum limit! Rigid quality control is maintained on all production, contract filling or custom packaging.

CHASE PRODUCTS CO.
Maywood, Illinois

EAST

QUALITY & SERVICE IN AEROSOL CUSTOM FILLING...

STALFORT PRESSURE-PAK CORP.

321 W. PRATT ST., BALTO. 1, MD.

FLUID CHEMICAL CO., INC.

1st in Contract Packaging

★ Aerosols

★ Liquid Filling

885-A MT. PROSPECT AVE.
NEWARK, N. J.
HUmboldt 5-2880

Old Empire

AEROSOL FILLING
AEROSOL CONCENTRATES
SHAVE CREAM
HAIR LACQUER
COSMETIC SPECIALTIES
PHARMACEUTICAL SPECIALTIES

MT. PROSPECT & VERONA AVES.
NEWARK, N. J. • HUMBOLDT 4-2121
N.Y.C. WORTH 4-7870

To All Buyers of
AEROSOL PRODUCTS:

Here are the advantages of a modern manufacturing plant built upon a foundation of over 30 years experience:

1. Contract fillers of both bottles and cans.
2. Pressure and "Cold Fill" facilities.
3. Modern up-to-date, compounding facilities.
4. Complete research and control laboratory.
5. Free product development and sampling.
6. Free Products Liability Insurance.
7. Centrally located plant.
8. Our modern materials handling and shipping rooms can also handle your drop-shipments.

ASSOCIATED BRANDS, INC.
50 WALLABOUT ST., BROOKLYN 11, N.Y.
Tel. ULster 5-2900

Crown Builds in Virginia

Construction of an 80,000 square-foot can plant was begun last month by Crown Cork & Seal Co., in Winchester, Va. Located on a 40-acre plot slightly more than a mile north of the community's boundary on U. S. Route 11, the new plant will be equipped with two can manufacturing lines. Plans provide for future expansion to six lines when demand requires.

The new plant is a modern one-story masonry and brick structure. Completion is scheduled for September.

Aerosols in Review

(*From Page* 45)

ing to improve their financial and competitive positions, suggests an article in the March 14 issue of *Chemical Week*. "The move may also spur research in flavor and odor science," the article says.

"To some observers of the flavor-fragrance business," the *Chemweek* report continues, "both moves are overdue. While other industries have evolved, the flavor-fragrance field bears many of the features that characterized it shortly after World War I.

"Chief reason: most flavor houses are small firms—either don't have the money to make changes, or don't want to. There are a few examples of firms in the business that have adequate financial resources to break out of the restrictions of their field, and these are adjusting to new demands in their industry. The consuming industry's increasing use of synthetics results in a greater demand for research demanding such costly equipment as gas chromatographs and infrared spectrophotometers.

". . . Big customers of the flavor-perfume makers, moreover, are becoming more demanding in their requirements. They want improved items, insist on stable prices and an assured source of supply. All this points in the direction of synthetics, away from the capriciousness characteristic of materials from animal and vegetable sources. Either politics or weather, for instance, can upset an essential oil supply picture overnight."

The article suggests that other factors making it harder for the smaller companies to keep pace are: more rigid demands by the Food & Drug Administration for expensive toxicity testing; the trend toward specialization in creative research; and the need to have on-the-spot compounding operations to supply U.S. companies manufacturing overseas.

Chemical Week also chides the perfume-flavor field for its hush-hush air about both its business and the technical sides.

•

THE Thomas Tilling group, a holding company which controls Safca of England and Mondart, Ltd., newly formed aerosol marketer, comes in for some discussion in Robert Head's financial column in the *Bristol Evening News* and the *Staffordshire Evening Sentinental* for Feb. 12. Tilling's management, the article declares, is "first class," a prerequisite to cutting down the risk in the somewhat "chancy" management of holding companies.

"One of these which has a magnificent record is Lionel Fraser's Thomas Tilling group. He has just added more than £500,000 (about $1,400,000) worth of new businesses to Tilling's holdings and he has joined Commercial Plastics to form a new aerosol company.

"Mr. Fraser has increased Tilling's profits from £570,000 to £1,984,000 in the past ten years or so. He has increased its dividend from 5 to 13½%."★

Sales Promotion

(*From Page* 50)

realize that they are more effective and produce better results. And, through integration of planning you sometimes can use a larger, more effective promotional effort concentrated in a specific market, as against smaller, scattered approaches throughout a wide, general area. This, in itself, is an excellent technique for improving the returns you will get from a smaller program.

Finally, but far from least important, is the essential prerequisite of establishing definite sales objectives in a written form, *and* a set promotional budget. Included among these objectives should be a figure for the total gross sales volume goal you hope to reach during the coming year's period. Next take a set percentage of this total gross and apply it to an integrated promotional plan. It may not be much at first, and in most small companies it isn't. However, once you get into the habit, it will probably stick and the results are far reaching.

A perfectly normal question is "How much do we set aside for promotional activities?", but for this there is no set answer. It depends primarily upon the specific needs of the individual manufacturer. Larger companies have it easier because they can establish an overall sales picture, marketing program, etc. broken down and planned by divisions and specialists in each field. However, the smaller aerosol firm must rely upon the sales manager, president, or, in some cases, a small advertising department, to come up with a recommendation or request for funds that will help support the sales activities throughout the year. One rule of thumb that has worked effectively in the past is to start with a minimum of 1% of gross sales as your budgeted advertising figure. This, again, can vary according to the company's needs for extra promotional funds to introduce new products, develop new markets, or going after a larger share of existing business.

The important thing is to begin setting money aside to use strictly and exclusively for a planned promotional program. When your advertising manager or agency has a set figure to work on (knowing that this is what they *have* to use) and cannot exceed for the year, it certainly promotes a more effective use of the dollars in doing the stated job of communicating your written sales message to your markets. It also relieves top management of a monthly or weekly chore of deciding how much to spend or where to spend it, as the whole plan has been approved and is operating efficiently on a planned, integrated budget. This doesn't mean that the aerosol executive should prepare an advertising budget and forget about it, but rather that his periodical reviews can be limited to twice or four times a year. These reviews *should* be carried out to make sure that the program is working properly and there is no need to change direction or emphasis because of new developments, market conditions, etc.

The company that pushes its corporate image, integrates its promotional activities, and establishes a set percentage of its budget for a promotional marketing campaign, will almost invitably become an industry leader, have good, steady growth, and get a high dollar return from its promotional expenditure.★

New Container Material

(*From Page* 25)

makes itself available over the whole inside surface of the bottle for effective permeation. Similarly, preliminary experiments on a half dozen commercial water-in-oil emulsions showed the same result, whereas it had been postulated that the external oil phase would be diffusion controlling and decrease losses markedly.

For some water-based products, such as shampoos or detergents, water permeation losses may not be particularly serious. In addition, expected higher loss rates in the summer because of higher temperatures are frequently compensated for by high humidity, which tends to reduce the loss rate. In any event, the aerosol packager should set up realistic requirements and tests to simulate conditions to be met.

EDITOR'S NOTE

This is the first of a two-part article. The next, in the May issue will show the package designer and engineer the effect of aerosol container design on economy.

References

REFERENCES

1. Pinsky, Jules, and Nielsen, A. R., "Chemical Resistance of Thermoplastic Materials," MACHINE DESIGN, August 21, 1958.

EAST

IMAGINATION • CREATION • REALIZATION

ATi

AEROSOL TECHNIQUES
INCORPORATED

Exclusively private label manufacturer of aerosol cosmetics, pharmaceuticals and chemical specialties.

Bridgeport 5, Conn. EDison 6-0176

COMPLETE CUSTOM LOADING SERVICE

Exclusively Private Label Manufacturer of Aerosol Cosmetics, Pharmaceuticals and Chemical Specialties.

PRODUCTION IN ANY QUANTITY

AEROSOL METHODS
Ridge & Allentown Rd., Tylersport, Pa.
Phone ALpine 7-6032

Thomasson

OF PA., INC.

AEROSOL FILLING
for Contract and Private Label Marketers

Also Liquid Filling

Complete Research and Laboratory Facilities
Constant Quality Control

Norristown, Pa. BRoadway 5-4355

YOU NEED A SPECIALIST

You can depend on NATIONAL to answer your aerosol packaging problems. NATIONAL affords you quality control, complete research, laboratory and production facilities. Here are a few of the many specialized products we are now filling successfully:

- Insecticides
- Cosmetics
- Perfumes
- Paints
- Stencil Inks
- Antibiotics
- Animal Sprays
- Plastic Sprays

NATIONAL SPRAY CAN FILLING CORP.
6202 Avenue U · B'klyn, N.Y. · CL 1-3350

EAST

Armstrong
Laboratories

CUSTOM, CONTRACT AND PRIVATE LABEL FILLERS OF METAL, GLASS AND PLASTIC AEROSOL CONTAINERS

SEPARATE AEROSOL PHARMACEUTICAL FACILITIES

WRITE OR CALL:

ARMSTRONG LABORATORIES
421 La Grange Street
West Roxbury, Boston 32, Mass.
FAirview 3-7404

METERED SPRAY AEROSOL SPECIALISTS

Exclusive, specially designed equipment for fast production of all metered dispensers.

RESEARCH to develop the right product.

QUALITY CONTROL to make the package marketable.

PRODUCTION to handle small and large volume of all type Aerosol products.

Make it a point to talk to "AERO-CHEM" first

quality AEROSOL PACKAGING service.

AERO-CHEM LABS, Inc.
1983-A State St. Ext., Phone: EDison 3-4181
BRIDGEPORT 5, CONN.

Our reputation merits your confidence

CONTRACT and CUSTOM FILLING of PRESSURIZED CONTAINERS

- PRODUCT DEVELOPMENT
- WAREHOUSE FACILITIES

Aerosol Filling Division
PURITAN
Distributing Co.
160 WASHINGTON STREET NORTH
BOSTON 14, MASS.
RIchmond 2-3318

SPECIALISTS IN AEROSOL FILLING OF PAINTS AND RELATED PRODUCTS
FOR EXPERT, ECONOMICAL SERVICE . . .
RED DEVIL CHEMICALS, INC.
30 NORTH WEST STREET
MOUNT VERNON, N. Y.
Call MOunt Vernon 4-9880

EAST

SUN-LAC INC.
"Successful through Service"
274 LAFAYETTE ST., NEWARK 5, N. J.

Aerosol Packaging
Small Runs Solicited
on
Cosmetics, Creams, Foams, Perfumes, Powders, Household Items, Insecticides, Industrial Products, & Plastic Sprays.

We formulate and develop new products. Quality controlled productions; bulk storage facilities; pressure & "Cold Fill" facilities. Special plan for companies requiring national distribution. We supply samples and do experimental work at no charge. Write or phone MA 3-7727 for full information.

Powders—Liquids—Emulsions

Quality
AEROSOL FILLING
we will fill only for customers and market no product line of our own

Eska CHEMICAL CORP.
352 Livonia Ave.
Brooklyn, N. Y.
Phone: Dickens 2-5205

Aerosol Packaging

Here you will find the answer to your aerosol packaging problems . . . whether you need cold or pressure filling of foams, liquids or gels. You name the product and the container and we are equipped to fill it for you.

POWR-PAK, INC.
145 Howard Ave., Bridgeport, Conn.

SOUTHEAST

We invite you to check our
- QUALITY
- SERVICE
- PRICES

Custom loaders of Aerosols . . . specializing in the cosmetic & sanitary supply products. Private label stock available. Strict quality controls.

Aerocos
AEROSOL CORPORATION OF THE SOUTH
P. O. Box 148 • Arlington, Tenn.

2. Cheney, A. J., and Ebeling, W. E., "Methods for Joining Plastic Parts," SPE Journal, Vol. 14, No. 3, March, 1958.
3. Pizzurro, J. C., and Abplanalp, R., "Nylon Opens a New Era in Aerosol Containers," AEROSOL AGE, June, 1957, Vol. 2, No. 6, pp. 37-40.
4. Pinsky, Jules; Nielsen, A. R.; and Parliman, J. H., "Shelf Life in Polyethylene," MODERN PACKAGING, October, 1954, p. 151.
5. Pinsky, Jules; Nielsen, A. R.; and Parliman, J. H., "Investigation of the Shelf Life of Liquids in Polyethylene Bottles," WADC TECHNICAL REPORT 53-133, PART 1, June, 1954, pp. 77-80.

•

Kauffman to Revlon Post

Revlon, Inc., New York, major aerosol marketer, has named J. P. Kauffman to the post of vice-president, merchandising. He was formerly associated with Procter & Gamble, Clayton & Anderson, and Colgate-Palmolive.

Silicones in Aerosols

(*From Page* 40)

This treatment should be very superior to any hair spray formulation now on the market, as the durability and water repellent characteristics of the silicone components should provide a spray which is soft and very resistant to water. This spray would also be very pleasant to the touch, and would not be sticky in any way. We expect this complete silicone system for hair treatment to be a very substantial new market for silicones in the reasonable future.

Industry

Defoamer:

A 100% silicone aerosol spray is widely used to defoam all manner of industrial foaming conditions. This type of package has long been found convenient for laboratory use.

Rust Preventative Spray:

The same rust preventative silicone which is suggested as a chrome protectant, is used in industry to protect tools and dies in storage.

Mould Release:

There are a number of silicone-containing sprays on the market which are used as mould release materials in the rubber and plastic industry. There are two types of materials, one for straight mould release

(Dow Corning 200 Fluid), and the other for mould release when the article being manufactured will subsequently be painted or decorated, (Dow Corning 555 Fluid). Two types are necessary, as the normal mould release material can sometimes cause difficulty with subsequent painting or decorating.

These uses of silicones in the aerosol industry indicate the breadth of penetration of many different silicone products today. With new materials coming along all the time, we expect many, many more materials which will allow new and varied uses of silicones in this rapidly expanding aerosol packaging field.★

Aluminum Cans

(*From Page* 37)

cans would result in even more damage unless rough handling is reduced by lower speeds, equipment modifications, and more manual operations. It is difficult to estimate what the effect of such changes upon production costs might be, but definite increases would be expected.

Product Retention

Another important question asked about aluminum containers is "How will it hold my product?" It is one thing to discuss the practicability of aluminum cans in terms of their initial cost and to forecast what would need to be changed in a packager's operations in order to accommodate them. These are matters of economics and engineering and the picture can and has been changing rapidly. It is another thing, however, to consider the question of how well this aluminum package will hold the product during its required storage life. This latter instance revolves around the inherent corrosion resistance of the container and the chemical activity of the product, matters which cannot always be altered by simple engineering nor accomplished at tolerable increase in costs.

In Europe, the economics of using aluminum food cans has been more favorable in the postwar period than here, and a considerable amount of both experimental and commercial experience has been accumulated. Based on this experience, there is little question but that the user of aluminum cans will have to plan on a substantially shorter shelf life for food products generally. In many instances this lower shelf life will not be important but for some it will be less than is considered the minimum requirement today for tin plate containers in this country.

The literature on European experience and experimental work is extensive, and the writings of Adam [1] and Taranger [2] may be considered typical. From these reports one must conclude the following:

(1) Almost without exception processed foods will require inside enameling in order to obtain a shelf life acceptable under any circumstance.

(2) When the pH is 5.0 or above, simple enameling for conventional products will result in a shelf life of two to three years at room temperature storage in most cases before hydrogen springers occur. However, some products in this range will have less storage life expectancy than this.

(3) For the more acid conventional products, the room temperature shelf life ranges from 12 to 18 months. Even this requires using the maximum protection available from known methods of anodizing, chemical treatment, enameling or combinations thereof.

(4) In general there is little difference in color and flavor between canned conventional foods packed in aluminum cans (properly protected against interior corrosion) and the same foods packed in conventional tin plate containers. For meat products and some sulfur bearing vegetables the problem of interior sulfur staining of the container and, in some instances the product, does not exist with aluminum. On the other hand, the tendency for aluminum to bleach some of the highly pigmented products is substantially greater. These findings are essentially corroborated for American product and packing methods by the results of the many experimental packs made by the

FAR WEST

CALIFORNIA'S PROGRESSIVE AEROSOL FILLER

Compare our
★ PRICES
★ QUALITY
and CONFIDENTIAL SERVICE

WESTERN
FILLS ALL PRODUCTS

WESTERN FILLING CORPORATION
6423 BANDINI BLVD., LOS ANGELES

CUSTOM PACKERS
Manufacturing Chemists

The west's oldest and most experienced aerosol fillers

WAREHOUSING — SHIPPING
COLD & PRESSURE FILLING

PAR INDUSTRIES, INC.
2193 E. 14th ST., LOS ANGELES, CALIF.

CANADA

IN CANADA

For All Types of Aerosol Packages, Cold or Pressure filled, Cans or Bottles, Manufactured to U.S. Specifications and Delivered to Your Canadian Distributors.

John Struthers and Co. Ltd.
Riverside 8-9623
5581 Pare Street,
Montreal 16,
Quebec, Canada

Aerosol Age *is read by marketers packaging engineers, and key research personnel all over the world. If you are trying to sell a service or a product to a whole new field of potential customers this is the place for your advertisement.*

American Can laboratories. This work extends back over the past three decades and has been the subject of very extensive investigation during the last several years.

To some this generally inferior corrosion resistance of aluminum as compared to tin plate may seem incongruous in the face of the general belief that aluminum is a metal of superior corrosion resistance. This belief is based for the most part on its resistance to corrosion under atmospheric conditions. Aluminum structures owe their corrosion resistance, not to the stability of the metal itself, but to the skin of aluminum oxide on its surface. This oxide is not only chemically inert but rapidly repairs itself if removed or damaged as long as there is oxygen available to reform the film.

Inside the modern food can, however, oxygen is present in extremely limited quantities and with no opportunity for replenishment. Perhaps it is an oversimplification, but one can ascribe the lower resistance to corrosion in the aluminum food container to the fact that there is no oxygen present to keep a resistant oxide film in repair after the initial corrosion breakthrough at disturbed areas or inherent defects in the film itself.

Organoleptic Effects

As far as the ultimate consumer is concerned the color, flavor and texture of the product as it comes from the container in her kitchen will be the most important criterion upon which she will base her acceptance or desire for aluminum containers. For the most part she will find no perceivable difference, but in this area there are a few pluses as well as minuses for aluminum.

Our own experiments have given results similar to those reported from Europe as cited earlier. Aluminum containers in which sulfur bearing vegetables or products containing meats have been packed *do not* show any discoloration under enamel after storage. This is an aesthetic advantage over tin plate containers. Also eliminated is the occasional but somewhat more grievous problem with certain products where black iron sulfide can form in localized areas of the tin plate container and in some instances appear on the product itself.

Aluminum containers tend to bleach the highly pigmented products to a greater extent than tin plate. For the darker fruits this may be a disadvantage unless organic coating systems are developed which are exceptionally effective in blocking all contact with the metal. The problem may be more serious with products such as peaches, pears and pineapple which now require packing in unenameled tin plate bodies to prevent their darkening. Unenameled aluminum cannot be used because of the corrosion hazard, and the use of a fully enameled container results in a dark discolored product.★

(1) W. B. Adam, "Preliminary Report on the Possible Use of Aluminum Cans for Fruit and Vegetables." *Food Preservation Quarterly 11*, No. 3-4, 35-38 (1951).

(2) A. Taranger. "Aluminum for Rigid Wall Cans." *Light Metals 19*, 387-394 (1956).

the first aerosol text:

PRESSURIZED PACKAGING (Aerosols)

by A. Herzka and J. Pickthall

price $12 in U.S.A.

114 Illustrations **424 Pages**

A new book on aerosol packaging by two British authorities, dealing with: propellants, containers, valves, filling methods, laboratory procedures, emulsified systems, and perfumes.

Contains a complete section, with more than 200 formulations covers foods, insecticides, cosmetics, paints, medicinals, hair preparations, space deodorants, etc.

The text is published in New York by Academic Press, Inc. and in London by Butterworths Scientific Publications.

Send Check With Order

AEROSOL AGE
P. O. Box 31
Caldwell, N. J.

Enclosed is our check for $12.00 (Foreign and Canada $12.50), covering a copy of PRESSURIZED PACKAGING (AEROSOLS). It is understood that we may return the book in ten days for a full refund.

Name .....

Address .....

City..... Zone..... State.....

New Aerosol Patents

Listed below is a brief review of recent patents pertinent to the aerosol and related industries.

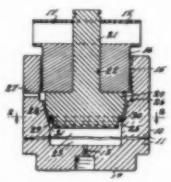
Complete copies of these patents may be obtained by writing to the publisher of this magazine, Aerosol Publications, Box 31, Caldwell, N. J., and remitting 50c for each copy desired. For orders received outside of the United States the cost will be $1.00 per copy.

2,871,161. SPRAYABLE WATER-FREE ALCOHOLIC POLYVINYL PYRROLIDONE HAIR PREPARATION. Issued Jan. 27 to Maurice L. Spiegel, Minneapolis, assignor to the LaMaur Co., Minneapolis, Minn., a corporation of Minnesota.

A substantially water-free sprayable liquid hair styling preparation for applying to the surface of the hair for setting the lusterizing the same, comprising polyvinyl-pyrrolidone, alcohol, and a propellant selected from the group consisting of fluorochloromethanes and fluorochloroethanes.

•

2,873,878. SEALS FOR PRESSURE VESSELS. Issued Feb. 17 to Robert C. Wolf, Hatboro, and John C. Bowen, Davisville, Pa., assignors to Pressure Products Industries, Inc., Hatboro, Pa., a corporation of Pennsylvania.



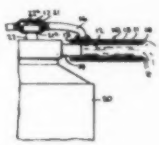
A seal of pressure vessels and the like comprising a first metallic member having a continuous curved outwardly flaring frusto-conical surface portion, a second metallic member to be sealed with respect to said first member having a step spaced from said surface portion, said step having a curved surface, a metallic sealing ring interposed between said members for sealing engagement therewith, said ring having an outer curved peripheral surface in linear engagement with said surface portion and an inner curved surface in linear engagement with the surface of said step, and members for urging said second member towards said first member for sealing engagement of said ring, said ring in sealing position being so located with respect to said frusto-conical surface portion and said curved surface of said step that a perpendicular to said surface portion from the location of engagement of said inner curved surface intersects said surface portion to one side of the location of engagement of said outer curved surface with said frusto-conical surface portion.

2,871,553. METHOD OF MAKING A CONTAINER. Issued Feb. 3 to Alfred Binder, Chicago, assignor to the Sherwin-Williams Co., Cleveland, O., a corporation of Ohio.

A process for making a container composed of a metallic can body, a metallic bottom seamed to one end, a metallic top having a rimmed circular opening therein seamed to the other end, and a non-metallic spout, comprising the steps of (1) substantially axially aligning *(a)* a resiliently deformable plastic nozzle having a tubular body with substantially non-tapering inner walls and a flange at one end of a diameter larger than that of said circular opening and capable of passing therethrough upon application of deforming force, and *(b)* said metallic container, in flange-to-rimmed circular opening relationship, (2) applying force in an axial direction to deform said plastic and move said flange through said opening to lock therebehind, and thereafter (3) telescoping within said nozzle a retaining ring adapted to be frictionally retained within said nozzle and to prevent substantial deformation of the nozzle in the region of said flange.

•

2,873,351. OUTLET HEATER FOR AEROSOL-TYPE DISPENSER. Issued Feb. 10, to Paul Lannert, Brooklyn, N. Y.



A heating device removably affixable to the outlet member of a valve-operated aerosol-type fluid dispenser, comprising a body portion having a passageway extending through said body portion, an inlet means on said passageway adapted for interconnection with said outlet member whereby the said fluid can be dispensed through said passageway; heating means on said body portion for heating the fluid in said passageway comprising an electrical heating element disposed along said body portion adjacent said passageway, insulated electric switch means for selectively inter-

Professional Directory

PRODUCT DEVELOPMENT AND EVALUATION

ER

Research—

Catalyst for Industry

EVANS RESEARCH

and DEVELOPMENT CORPORATION

DEPT. T

250 East 43rd Street

New York 17, N.Y.

bio-assay

INSECTICIDE AEROSOL

- *formulation performance*
- *label claims*
- *mammalian toxicity*

WISCONSIN ALUMNI RESEARCH FOUNDATION

INSECTICIDE TESTING LABORATORY

P. O. BOX 2217-DD

MADISON 1, WIS.

Memo:

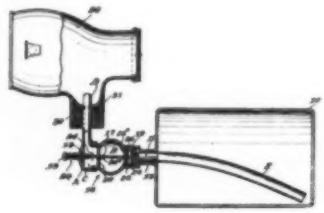
Have we ordered the new book on aerosols—"Pressurized Packaging (Aerosols)" for our research department?

A handy order form appears on page 88 of this issue.

connecting said element with a power source and disposable against the control valve on said dispenser for actuation therewith; and an outlet means on said passageway for dispensing the heated fluid therefrom for use.

•

2,872,923. MEANS OF ADMINISTERING PRESSURIZED MEDICAMENTS, GASES, COMBINATIONS THEREOF, AND LIQUIDS INTO BODY CAVITIES. Issued Feb. 10 to Herbert M. Birch, Bethesda, Md. and Daniel H. Gattone, Drexel Hill, Pa., assignors to Birch and Gattone, Inc., Washington, D. C., a corporation of Delaware.



Means for supplying medicament from a pressurized container into the respiratory system of the human body, said means comprising a mask having an air inhalation valve means, an exhalation valve means, a medicament inlet having the bore formed with an annular coupling ring, and manually opened and pressure closed valve means in said container having a tubular extension with an exterior groove adapted to receive the said coupling ring of said mask inlet, said valve means being a metered valve.

•

24,599 (Reissue of 2,766,915). DISPENSING VALVE STRUCTURE FOR AEROSOL CONTAINER. Reissued Feb. 19 to Albert B. Campbell, Du Page County, Ill., assignor to Campbell Products Co., a corporation of Illinois.

An aerosol dispenser assembly having a container valve assembly and cap, which comprises: a dispenser container having an upper opening for receiving a dispensing valve assembly; a dispensing valve assembly comprising a valve housing having an opening; said housing having means for being attached to said container at said container opening; substantially vertically extending fluid passage means with an upper outlet positioned above said container and a lower inlet communicating with the confines of said container; a vertically extending, vertically reciprocative valve stem having an upper portion extending above said container; and sealing means for selectively opening and sealably closing said fluid passage means; said sealing means, valve stem and passage means being operatively associated with each other so that said sealing means normally closes said passage means and thereby prevents the egress of contents of said container through said passage outlet, and movement of said stem from its normal position permits the egress of contents of said container through said passage outlet; and an integral flexible removable plastic cap comprising a cylindrical noncollapsible skirt portion normally detachably secured to said container and normally circumscribing said passage means and said upper portion of the reciprocative valve stem; the lower end of said skirt having retaining means for permitting the cap to be secured to said valve housing; said skirt portion having a fluid outlet extending at an angle to the axis of said stem through which the container contents is adapted to spout; said cap having a substantially flat flexible top spaced above said skirt and overlying said upper portion of the valve stem which, when depressed, moves said valve stem from its normal position towards said container opening thereby permitting the egress of contents of said container through said passage outlet; a substantially vertical upstanding wall extending above said flexible top and said skirt for preventing accidental depression of said flexible top and said valve stem; said flexible top being capable of being depressed independently of said upstanding wall and said skirt but only by selective pressure applied within the boundary of the upstanding wall.

•

Bon Ami Appoints Holmes

John C. Holmes has been named director of marketing by the Bon Ami Co., New York, for the company's department to market packages to the institutional, industrial, maintenance, sanitary, and other non-grocery fields.

LAB SERVICE

information available

complete information on the following services will be sent to you on request

- General
- Nutritional Food Evaluation
- Vitamin D Assay
- Chemistry
- Bacteriology
- Feed Industry Services
- Food Technology
- Insecticide Testing
- Toxicology
- Vitamin Assays

Color brochure and price schedule available on request

WISCONSIN ALUMNI RESEARCH FOUNDATION

North Walnut St., Madison, Wis.

Trade Mark Applications

Applications for registration of the following trademarks were published in recent issues of the *Official Gazette* of the U. S. Patent Office. In not all cases are there strictly aerosol trademarks, however many of the products listed below come within the category of those for which a possible future use in aerosols is foreseen.

TRYBEN, for weed killing compounds. Filed April 14, 1958 by E. I. du Pont de Nemours and Co., Wilmington, claiming first use March 24 of same year.

NORTHRUP KING, for lawn weed killer and crabgrass killer. Filed April 14, 1958 by Northrup, King & Co., Minneapolis, with first use claimed Feb. 1, 1951.

FENN, for anti-picking spray for game birds. Filed April 25, 1958 by S. B. Penick & Co., New York, claiming first use Sept. 4 of previous year.

PREDNIDERM, for pharmaceutical preparation for topical use in dermotological conditions. Filed July 10, 1958 by U. S. Vitamin Corp., New York, with first use reported as Oct. 7 of previous year.

CORT-ACNE, for medical preparation for dermatological use for the treatment of *acne vulgaris, acne rosaca,* and all other forms of acne. Filed July 30, 1958 by Dermik Pharmacal Co., Inc., Brooklyn, N. Y., claiming first use Feb. 15, 1956.

SPRA-TONE, for furniture repairing and finishing. Filed Oct. 6, 1958 by Mohawk Furniture Finishing Products, Inc., Amsterdam, N. Y., with first use reported for Sept. 29 of same year.

ENVY, for coating for the artificial coloring and protection of grass and other vegetation. Filed Sept. 9, 1957 by S. C. Johnson & Son, Inc., Racine, Wisc., reporting first use July 22 of the same year.

SPRAYRITE, for plant growth stimulants. Filed Dec. 5, 1957 by Virginia Smelting Co., West Norfolk, Va., claiming first use Oct. 2, of same year.

STA SET, in heavy script, for spray preparation for setting the hair. Filed June 11 by General Products, Chicago, Ill., claiming first use May 29, 1952.

STINGO, for medicinal preparation for the relief of sting and to help prevent swelling of insect bites and strings. Filed Aug. 8, 1958 by Wilbur Royster Adams, d.b.a. Carolina Beach Drug Co., Carolina Beach, N. C., with first use reported for 1956.

AIR MAGIC, outline letter in a sunburst design, for air deodorant. Filed May 13, 1958 by Frank G. Marshall, d.b.a. Drop Dead Co., Pasadena, Calif., claiming first use Aug. 1, 1954.

CLASSIFIED ADVERTISING

Rates for classified advertisements are ten cents per word, $2.00 minimum, except those of individuals seeking employment which *Aerosol Age* will run without charge. Check must accompany all classified advertisements. Address all replies to Classified Advertisements with Box Number, care of *Aerosol Age*, Box 31, Caldwell, N. J. Closing date: tenth of month preceding month of issue.

HELP WANTED:

YOUNG MAN experienced in Aerosol field to assist in directing operations of expanding Midwestern Laboratory. Submit resume. Box 177.

SITUATIONS WANTED:

SALES or SALES MANAGEMENT. 17 years management, sales, market development of specialty products, industrial and consumer, including 8 years aerosols exclusively. Technical background; sanitary chemicals, pharmaceuticals, agriculturals. Intimate knowledge following markets; drug, supermarket, garden supply, hardware, janitor supply, retail chains. N. Y. resident. Address box 178, c/o Aerosol Age.

YOUNG MAN with many years of experience in aerosol formulations for cosmetic and pharmaceutical products, seeks a challenging position, preferably in Northern New Jersey. Can be in charge of a project and assume full responsibility. Address Box 179, c/o Aerosol Age.

SCC to Honor Dr. Blank

The special award presented annually by the Society of Cosmetic Chemists, and carrying a prize of $1000, will be awarded this year to Dr. Irvin H. Blank in recognition of his fundamental research and writings on "Factors Controlling Suppleness and Flexibility of Skin." The distinguished dermatologist and biochemist will attend the May 7th Meeting of the society at the Hotel Commodore to receive the award.

Dr. Blank was among the first to recognize, demonstrate and publicize the fact that moisture is the primary factor in keeping skin soft, smooth, and supple. His experiments proved that the keratinized layer of the skin becomes hard and inflexible when dehydrated and cannot be softened by oil or humectants. Instead, water alone is necessary and sufficient to restore softness and flexibility of the skin.

Beaudoin Joins Geigy

Howard S. Beaudoin has joined the field research staff of Geigy Agricultural Chemicals, Division of the Geigy Chemical Corp., Ardsley, N. Y., and will be assigned to the Pacific Northwest area.

Formerly deputy state entomologist in Wyoming, Mr. Beaudoin most recently was with the Velsicol Chemical Corp., Chicago, as technical sales representative for the Northwest.

•

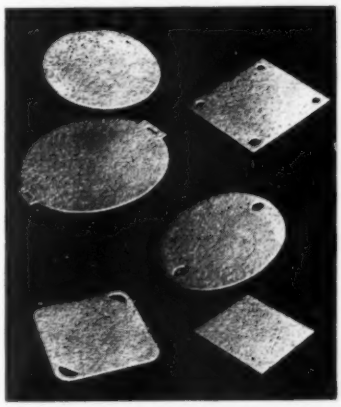
Linde Building Nitrogen Plant

The Linde Co. Division of Union Carbide Corp., New York, has announced the beginning of construction of a new nitrogen and liquid oxygen plant near Huntsville, Ala. The plant, estimated to cost several million dollars, is scheduled to be completed early next year.

Babbitt Signs New Pact

B. T. Babbitt, Inc., New York, last month announced the signing of an agreement with the Pittsburgh Railways Co. whereby patrons will be able to ride free on any regular service trolly or bus by using four Babbitt product coupons. Pittsburgh makes the seventh city in which Babbitt has signed such an agreement, the others being New York, Boston, Philadelphia, Detroit, Miami and Cincinnati. Coupons will be accepted from Babbitt's "Air-Gene" and "Hep" aerosols.

For finer Aerosol Products Industry uses ERTEL ASBESTOS FILTER SHEETS and FILTERS



To fit most filters—10 Porosities

WRITE FOR TYPICAL PRODUCT APPLICATION CHARTS & GUIDE

ERTEL ENGINEERING CORP.

18 FAIR ST., KINGSTON, N. Y.

Competition Getting Tougher?

Your advertisement in this space will be widely seen throughout the packaging, cosmetic, food, pharmaceutical, paint and insecticide industries.

APCON NYLON AEROSOLS CREATE SALES PREFERENCE

Translucent containers, with built-in pastel colors, high styling and visual product supply, increase consumer demand—Unbreakable, too!

apcon Company

King's Highway at 25th, Independence, Missouri

Phone: CLifton 4-6000

TREMENDOUS SAVINGS

DUE TO

Program Change in Manufacture

for Immediate Sale

Like NEW complete set up for the manufacturing of 6 oz. Aerosol Aluminum Containers 13/32" - 3⅛" Diameter, consisting of the following machines:

1—WIFAG Fully Automatic Four-Color Printing and Coating Line, Size No. 1 with Automatic Loading & Transfer Line and Conveyor.

1—P8 320 Ton HERLAN Gigant Impact Extrusion Press.

1—TB 10-2 HERLAN Tube Lathe with Conveyor.

1—BST HERLAN Flanger with Conveyor.

1—MSL HERLAN Slug Tumbler.

2—SPRIMAG Inside Coaters.

Complete with ovens, elevators and conveyors, which will be sold only as a complete operation.

FOR SALE — INDIVIDUALLY

3—HERLAN MSL Slug Tumbler—New.

3—HERLAN BST Flanger—New.

3—ANGLUS Seamer—New.

2—SPRIMAG Inside Coaters, New

3—WIFAG Fully Automatic Four-Color Printing & Coating Lines, Size No. 1, New.

3—P8 320 Ton HERLAN Gigant Impact Extrusion Press, New.

INDEX INDUSTRIAL CORPORATION

150 Broadway, N. Y. 38, N. Y.

Telephone: BEekman 3-4120

druk pak inc.

36, Merkur Strasse
Zurich, Switzerland

Supplying internationally for aerosols

- Laboratory Equipment
- Filling Machines (Cold and Pressure)
- Valves (Liquid and) Foam/Cans and Glass Bottles)
- Product Concentrates
- Laboratory Service
- Advice and Consultation

Valve Clincher
Metal Cans and Bottles
DP-104 and DP-104a

All Products manufactured to our own Designs, Formulations and Patents. Valves available from Germany and Italy—Filling Machines from Germany—Laboratory Equipment and Concentrates from Switzerland.

Publishers of "European Aerosol Survey," a quarterly periodical

Catalogues and Prices on Request.

Index to Advertisers ▸▸ April 1959

—A—

Action Plastics 63
Aero-Chem Laboratories Inc..... 86
Aerosol Corp. of the South..... 86
Aerosol Fylling A/S.....March
Aerosol Methods 85
Aerosol Research Co..... 3
Aerosol Techniques, Inc.....69, 85
Air Reduction Co..... 36
Allied Chemical Corp.
General Chemical Division..... 31
American Can Co..... 51
Anchor Plastics Co., Inc..... 43
Apcon Co. 91
Armstrong Laboratories 86
Associated Brands, Inc..... 84

—B—

Baltic Chemical Co..... 82
Barr, G. & Co..... 84
Bombrini Parodi-Del Fino..... 14
Builder's Sheet Metal Works, Inc. 72

—C—

Chase Products 83
Ciba Co., Inc..... 39
Cleveland Aerosol Pkg. Corp..... 83
Colton, Arthur Co.....March
Consolidated Pack. Mach. Corp. March
Continental Can Co..... 67
Continental Filling Corp..... 83
Cowles Chemical Co..... 62
Croda, Inc. 65
Crown Cork & Seal Co..... 17

—D—

Diamond Alkali Co..... 68
Dodge & Olcott, Inc..... 33
Druk-Pak, Inc. 92
du Pont de Nemours Co., E. I...11, 16

—E—

Eastern Cap & Closure Co..... 79
Ertel Engineering Corp..... 91
Eska Chemical Co..... 86
Evans Research & Development
Corp. 89
Eveready Products, Inc..... 83

—F—

Fairfield Chemical Division..4th Cover
Food Machinery & Chem. Corp.
Felton Chemical Co..... 70
Florasynth Laboratories, Inc...March
Fluid Chemical Co.....18, 84
Foresman, Robert A., Jr..... 80
Walter Frank Organization..... 61
Fritzsche Bros. 55

—G—

Gard Industries, Inc..... 83
Geigy Agricultural Chemicals
Division, Geigy Chemical Corp. 15
Gilbert Plastics, Inc..... 4
Givaudan-Delawanna, Inc. 44
Adolph Gottscho, Inc..... 80

—H, I, J—

Hope Machine Co.....March
IKI Manufacturing Co..... 83
Index Industrial Corp..... 92
JG Machine Works.....Feb.

—K—

Kiwi Coders Corp..... 78
KLM-Royal Dutch Airlines..... 76

—M—

Magnus, Mabee & Reynard, Inc. March
McLaughlin Gormley King....March
Metal Fabrications Inc. 9
Mojonnier Associates Division
Kartridg-Pak Machine Co..... 60

—N—

Nalbach, John R., Engineering Co. 77
National Spray Can Filling Corp. 85
Newman-Green, Inc. 6, 7
Norda 75

—O—

Ohio Chemical & Surgical Equip.
Co. 36
Old Empire, Inc..... 74
Onyx Oil & Chemical Co..... 12
Owens-Illinois Glass Co..... 57

—P—

Pace, Inc. 78
Par Industries, Inc.....81, 87
Peerless Tube Co.....48, 49
Pennsalt Chemicals Corp..... 73
Penn Cork & Closures, Inc..... 71
Peterson Filling & Packaging Co.
3rd Cover, 83
Pfizer, Chas. & Co..... 29
Powr-Pak, Inc. 86
Precision Valve Corp..... 34
Prentiss Drug & Chemical Co.... 10
Puritan Distributing Co.
Aerosol Filling Division..... 86
Products Packaging Inc..... 83

—R—

Red Devil Chemicals, Inc..... 86
Robinson-Wagner Co. .....March
Robins Engineering Corp.....March
Rhodia, Inc. .....Feb.
Risdon Mfg. Co.....March
Roure-Dupont, Inc. .....Feb.

—S—

Schimmel & Co..... 58
Scranton Aerosol Division
Scranton Corp. .....March
Solfrene SPA 78
Stalfort Pressure-Pak..2nd Cover, 84
Sun-Lac, Inc. 86
John R. Struthers Co..... 87

—T, U, V—

Thomasson of Pa, Inc..... 85
Union Carbide Chemicals Co..... 13
U. S. Bottlers Machinery Co..... 80
U. S. Industrial Chemicals.....March
Valve Corp. of America..... 53
van Ameringen-Haebler, Inc....March

—W—

Western Filling Corp..... 87
S.S. White Dental Mfg. Co.....March
A. H. Wirz Inc..... 41
Wisc. Alumni Res. Foundation..89, 90

Wiessner to Crown Post

Gilbert W. Wiessner has been appointed sales representative for Crown Cork & Seal Co., Philadelphia for the state of North Carolina. During his 18 years with the company, he has been a sales production engineer, sales correspondent, technical service representative, export sales correspondent, and field sales engineer. As a technical service engineer, he coordinated the installation of Crown filling and capping equipment with the efficient use of Crown closures.

Hehnke to Wrisley Post

The Allen B. Wrisley Co., Chicago aerosol cologne marketer, last month named John Hehnke to the post of vice-president, sales. He had been manager of drug and department store sales.

OVER THE TRANSOM

DUPONT'S long-awaited food propellant, "Freon C 318", is about ready for formal submission to the U. S. Food and Drug Administration. Toxicity, extraction, and other necessary chemical and physical tests have been completed, and a petition for approval will be filed within a matter of weeks. According to information disclosed at the Packaging Institute Symposium on the Food Additive Amendment, one of the major difficulties in compiling data on the propellant was that of attempting to feed it to test animals. The propellant is relatively insoluble in water and other common food solvents, and the test animals showed no inclination to take it straight!

* * *

R. M. Hendrickson, Minneapolis marketing expert, last month came up with a proposal (in a United Press Interview) for aerosol eggs. He suggested putting yolks, whites, or blended yolks and whites into pressurized cans. "At the touch of a finger, you have all the whipped whites you need, or a frying pan full of scrambled eggs or egg soufflé ready to cook.

* * *

A fantastic public relations job has been done (at least in Great Britain and on the Continent) on the "Presfil" aerosol pressure filling machine. For the last three months our English clipping service has sent us a flood of clippings describing the new machine in glowing terms, and even such far afield publications as *Financial Times* and *Printing Press & Publishing News* have printed the story. It's amazing to see how far effective public relations can go to interest so many trade magazine editors.

No fear of this unit making inroads into the U. S. market, however, as we hear it fills and charges at very slow speeds with most U. S. valves.

* * *

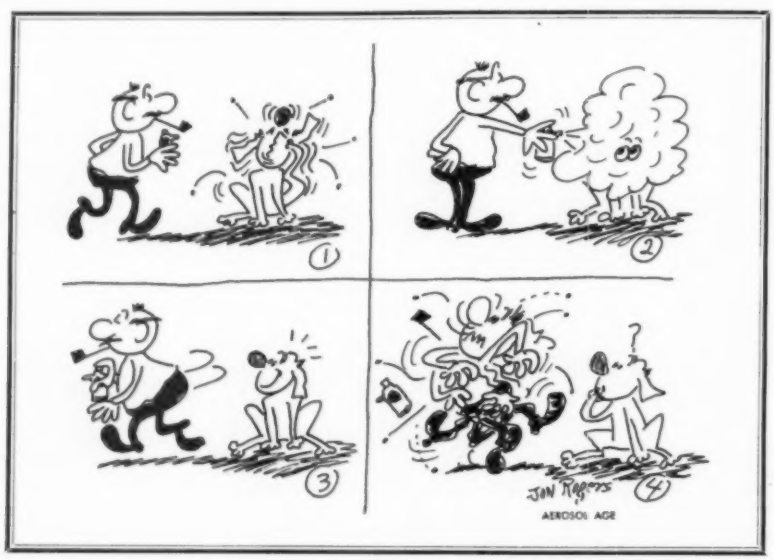
As may be seen from the article on page 30, the aerosol industry may have considerable work and expense on its hands before it goes into food packaging in a big way. One estimate for getting together sufficient data for FDA approval of a plastic packaging component (as reported at the Packaging Institute first regional conference) was $15,000-$20,000.

* * *

A pressure packaging chocolate syrup figured prominently in a divorce case in Long Island in February. The wife got her divorce after telling the judge that her husband had come home in a huff one night and squirted aerosol chocolate all over her head and then all over the living room sofa!

* * *

Max Factor & Co., major aerosol marketer, has given up plans to buy the Mutual Broadcasting System from the Scranton Corp., a subsidiary of F. J. Jacobs Co. This would have been Factor's first venture outside the cosmetic field.



The first aerosol-packaged hand cream has been introduced in England by Lownds, Pateman, Ltd. Also from England, prices on hair sprays, room deodorants, and insecticides continue to be reduced by more leading marketers.

* * *

Membership of CSMA moved back up to the 400 level with the election of two new members at the recent board of governors meeting at Clearwater. Both new members are custom fillers, — National Spray Can Filling Corp., Brooklyn, and Sun-Lac, Inc., Newark. At the same meeting in Florida came word that membership in CSMA's Aerosol Division Administrative Committee will be expanded to seven for 1960. With the present five members it is sometimes difficult to count on adequate representation at meetings. Thus the nominating committee will offer a slate of seven names for 1960.

* * *

Doc Hamilton, perennial secretary of CSMA, has announced that he will retire from this post at the end of the current year. There are none who doubt, however, that "Mr. CSMA" will continue to be most actively interested in everything that the association undertakes. CSMA will indeed be fortunate if it has the benefit of his experience and ability for years to come.

* * *

What, we began wondering, has happened to the aerosol book which H. R. Shepherd of Aerosol Techniques has been working on for the past couple of years. Inquiry disclosed that it will probably be another six months before the manuscript is completed, and then another six months before copies are "off press." Meanwhile the Herzka-Pickthall text has the field to itself, and copies are selling at a rapid rate.

* * *

Look for big developments soon in new food aerosols, we were told by one of our best informed agents. As in the pharmaceutical field, the food market has been a little slow getting under way, but, big new developments will be popping shortly.

* * *

Aerosol toothpaste has, in the less-than-a-year it has been on the market, succeeded in seizing some 18% of the market. This, on the basis of the well-known Neilsen consumer survey, represents, in our view, quite an achievement. And those who might have expected faster progress, were perhaps unfamiliar with how long it takes to change established buying patterns.